Determinants of Corporate Disclosures: A Study on the Listed Manufacturing Companies in Bangladesh

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DEDICATION

TO MY FATHER PROFESSOR KAZI FARUKY

This research would have never been attempted without his persistence and endurance

TO MY MOTHER MRS. SHAMSUN NAHAR FARUKY

My first teacher, a strong and gentle soul who taught me to have patience in every situation

TO MY FAMILY

For the sacrifice, support and patience

DECLARATION

I hereby declare that the thesis titled 'Determinants of Corporate Disclosures: A Study on the Listed Manufacturing Companies in Bangladesh' submitted to the Department of Accounting & Information Systems, University of Dhaka, for the award of the Degree of Doctor of Philosophy is prepared by me under the supervision of Prof. Dr. Mahmuda Akter. I further declare that this is an original work and the contents of this thesis have not either in part or in full been submitted elsewhere for an academic award.

Kazi Naeema Binte Faruky

October 2021

CERTIFICATE

This is hereby certified that Kazi Naeema Binte Faruky is a PhD student under the Department of Accounting and Information Systems. She has prepared the thesis titled “Determinants of Corporate Disclosures: A Study on the Listed Manufacturing Companies in Bangladesh” under my direct supervision. The content of this thesis is mainly the result of work which has been carried out since the official commencement date of the approved research program. This is an original work and the material contained in this thesis has not been previously submitted elsewhere to qualify for an academic award.

Mahmuda Akter, PhD

Professor

Department of Accounting and Information Systems

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October 2021

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However, I would not want to create the impression that anyone else bears the slightest responsibility for any errors or weaknesses that remain in this work. Those, of course, belong solely to me.

ABSTRACT

This research focuses on various issues; first to measure the level of mandatory and voluntary disclosures presented by the DSE-listed manufacturing companies in their annual reports, second to explore whether there is any interaction between the two types of disclosures and third to identify the factors (both in company's internal and external setting)that are affecting the disclosure practice. This study proposes a contingency theory concept for analyzing the relationship between disclosures and the factors. Data have been collected from both qualitative and quantitative sources. By conducting content analysis of annual reports, the extents of mandatory and voluntary disclosures have been measured by two separate disclosure indices. The study reveals that companies are not complying fully with the mandatory requirements and also the level of voluntary disclosure is poor. The multiple regression analysis demonstrates a positive association between the two types of disclosures. It is observed that mandatory disclosures have significant positive relationship with size of companies (internal factor) and regulatory bodies (external factor); while it is negatively associated with profitability (internal factor) of companies and trade associations (external factor). Voluntary disclosures have positive association with size of companies (internal factor) and professional institutions (external factor).The present research would contribute to further the understanding of corporate reporting practice in emerging economy environment. In order to improve corporate transparency it is necessary to understand how various factors influence companies' disclosure behavior. Thus evidences of this study have implications for regulators and professional accounting bodies for developing compliance with mandatory disclosure requirements and encouraging voluntary disclosure practices.

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LIST OF ACRONYMS AND ABBREVIATIONS

AICPA: American Institute of Certified Public Accountants

BAS: Bangladesh Accounting Standard

BFRS: Bangladesh Financial Reporting Standards

BSEC: Bangladesh Securities & Exchange Commission

BGMEA: Bangladesh Garment Manufacturers and Exporters Association

CA: Chartered Accountants

CDBL: Central Depository Bangladesh Limited

CFO: Chief Financial Officer

CGG: Corporate Governance Guidelines

CGC: Corporate Governance Code

CS: Chartered Secretary

CSE: Chittagong Stock Exchange

CSER: Corporate Social and Environmental Responsibility

CSR: Corporate Social Responsibility

DV: Dependent Variables

DSE: Dhaka Stock Exchange

e¡: The Error Term

GDP: Gross Domestic Product

IAS: International Accounting Standards

IASB: International Accounting Standard Board

IASC: International Accounting Standard Committee

ICAB: Institute of Chartered Accountants of Bangladesh

ICAS: Institute of Chartered Accountants of Scotland

IDRA: Insurance Development and Regulatory Authority

IFRS: International Financial Reporting Standards

KPMG: Klynveld Peat Marwick Goerdeler

MDI: Mandatory Disclosure Index

NBR: National Board of Revenue

OLS: Ordinary Least Square

RJSC: Registrar of Joint Stock Companies

ROSC: Report on the Observance of Standards and Codes

SAS: Statistical Analysis System

SPSS: Statistical Package for the Social Sciences

STATA: STATA is a syllabic abbreviation of the words statistics and data.

VDI: Voluntary Disclosure Index

CHAPTERONE

INTRODUCTION

1.0 Introduction

Accounting systems and reporting practices vary among companies due to the difference in their internal attributes. It is also affected by factors prevailing in the external environmental premises in which the company operates. The present study aims to examine empirically the influence of both company characteristics and external factors on accounting disclosure practice using a contingency theory approach. This type of study in the context of Bangladesh is rare and it is expected that the current research would help to fill this gap in literature. The first chapter introduces the research as follow: section 1.1 provides the background and motivation of the study, section 1.2 explains the statement of the problem, section 1.3 discusses the objectives of the study, section 1.4 presents the research questions, section 1.5 describes the contributions of the study, section 1.6 provides the operational definition of the terms used in the study, section 1.7 outlines the thesis structure and finally section 1.8 provides a summary of the chapter.

1.1 Background and Motivation of the Study

The turmoil in global business (for example; the scandal of Waste Management Scandal, Tyco, Enron and WorldCom etc.) and increasing needs of different groups of users persuade researchers to investigate different aspects of corporate reporting. There are loads of studies relating to accounting disclosures (either mandatory disclosure or voluntary disclosure or both) covering various issues including disclosure practices; determinants of disclosure; impact of regulation on disclosure; etc. Numerous researchers have extended their sight in order to investigate the causes behind variation of extent and quality of disclosure among companies. Many studies have recognized the relation of company's internal factors or internal attributes (such as; size, age, profitability, ownership structure etc) with disclosures. However, several studies focus on external factors also. Haniffa and Cooke (2002) note that managers and companies in different countries are affected by the underlying environmental influences upon which disclosure practice of a country is developed. Bhattacharjee and Islam (2009) mention that previous studies identified various issues of a specific country related to its disclosure practice including legal system, political system, taxation system, etc. Choi and Mueller (2011) opine that variations among the accounting standards and practices of different countries are expected as there are differences among economic, historical, institutional, and cultural factors. Elsayed (2008) observes a general agreement among the previous researchers that the environmental factors affecting accounting disclosure of a company include international business, international accounting regulations as well as local country's economic development, political system, capital market, inflation levels, tax laws, culture, accounting regulations, professional and trade associations, media, user's knowledge etc.

With the pace in technological development throughout the globe, stock market operation in Bangladesh has also been increased gradually. The market capitalization at the Dhaka Stock Exchange at June, 2018 was Tk. 3812.29 billion (Bangladesh Bank, 2018);while it was Tk. 931,025million in FY2007-08 (Ahmed & Ali, 2013). Recently Bangladesh has been graduated to a developing country from least developed country. Manufacturing sector was the only way to make the country graduate to the next level (Ahmed, 2016). At December 2018 the manufacturing sector holds the highest market capitalization rate of around 39%. A large number of investors have already devoted money in the manufacturing companies and are interested about their activities. A strong capital market can play an important role for smooth funding of the competing firms. Proper disclosure of corporate activities by the listed companies facilitates in the development of stock market.

There is an extensive literature on the determinants of disclosure by the listed manufacturing companies in Bangladesh. Studies are available on the determinants of mandatory disclosure (Akhtaruddin, 2005; Das, 2015; Hasan, Karim, & Quayes, 2008;) as well as voluntary disclosure (Belal & Owen, 2007; Khan, Muttakin, & Siddiqui, 2013; Hossain & Hammami,2009) by the listed manufacturing companies. Few studies focused on both types of disclosures. Most of the previous studies focus on company's internal factors or attributes as determinants of disclosure. In many of this type of studies, researchers admit that external factors especially within the national boundary may cause the poor picture of disclosure (Akhtaruddin, 2005; Belal& Cooper, 2011; Hasan & Hosain, 2015). However, very few studies attempt to explore the influence of these external factors on the disclosure practice in Bangladesh. These studies are mostly qualitative in nature. There is lack of quantitative studies to test how external factors influence the disclosure level of listed manufacturing companies in Bangladesh. Moreover, the joint effect of various factors in one study is rarely investigated. On the other hand, few studies attempted to collect the opinion (about the influence of factors on disclosure) of persons involved in the preparation of annual reports.

Thus, the following gaps in the existing literature have been identified:

i. Most of the previous studies on the disclosure practice of listed manufacturing companies in Bangladesh focus on either mandatory or voluntary reporting practices. There is lack of research on the relation between the two types of disclosures. Very few researchers observe determinants of both types of reporting in one study.
ii. Most of the studies on listed manufacturing companies in Bangladesh are on the association of company's specific attributes or internal factors (like size, age, profitability etc) with its disclosure practice. But empirical research identifying the association of external factors with level of disclosure is rare. It is unexplored in the literature how external and internal factors simultaneously influence the disclosure practice.

Against this background, the present research intends to examine how companies' internal features and external environmental factors explain variation in accounting disclosure of the listed manufacturing companies in Bangladesh. However, this study provides evidences regarding annual report disclosures by the DSE-listed manufacturing companies for the accounting period ended during the year 2017. The influence of the factors on accounting disclosure practices is usefully conceptualized with the aid of contingency theory. Elsayed and Hoque (2010) opine that in financial accounting literature use of contingency theory has been started very recently. Thomas (as cited in Elsayed &Hoque, 2010) opines that according to contingency perspective disclosure by a company is associated with particular circumstantial variables inside and outside the organizations. The study of Lopes and Rodrigues (as cited in Elsayed &Hoque, 2010) indicates that differences in the operating environment lead to differing decisions regarding corporate reporting. Therefore, the present study proposes a contingency theory, as a framework for analyzing the relationship of corporate disclosure with the internal and external environmental context in which it is practiced.

1.2 Statement of the Problem

Annual reports have been recognized as the most reliable source of information for the general investors. Listed manufacturing companies in Bangladesh publish annual reports containing mandatory and voluntary information. All the manufacturing companies listed in DSE have to comply with some mandatory regulations for external reporting purposes, such as Companies Act 1994; Securities and Exchange Rules 1987; Corporate Governance Guidelines 2012 (recently amended as Corporate Governance Code 2018); Dhaka Stock Exchange (Listing) Regulations 2015 and the IASs/IFRSs as adopted by the ICAB. Besides, management of the companies provides some information about their activities relating to society, environment, human resource, etc. These voluntary disclosures are published by the company in addition to regulatory requirements.

Prior studies state that companies do not provide adequate information in their annual reports irrespective of the existing vast regulatory framework. Speculators are still gaining by resorting inside information and rumor. The devastating crashes in 1996 and 2010 reveal that the conventional reporting traditions in Bangladesh does not give sufficient information to the general shareholders investors (Das, Dixon, & Michael, 2015). Still to date Bangladesh cannot claim to recover from this situation, investments of general public are yet in a shaky position. In an article, “2019 worst year for stocks after ’10 crash, DSEX loses 16.73pc as investors’ confidence hits bottom” which was reported on December 31,2019 in the New Age Business; it was claimed that shareholders have experienced the most horrible year in 2019 since the market crash in 2010-11. It mentioned specialized opinion that investors’ confidences had been eroded due to poor control in the capital market. The present regulatory environment could not protect the interest of general investors.

In this context understanding the current status of disclosures and the factors influencing corporate disclosure behavior has been a key to interest in order to improve the existing scenario. Researchers are coming forward to unveil different issues of corporate disclosure practices in Bangladesh in order to improve the situation. Disclosure behavior of a company depends on the internal environment or company specific attributes. Also the factors prevailing in outer environment in which the company operates affect disclosure practice. Although there are studies available on internal factors (size, profitability etc.), research identifying the influence of external factors (like regulatory bodies, professional bodies etc.) are rare in Bangladesh. The present study acknowledges both types of factors and aims to explore how these factors influence the annual report disclosure of listed manufacturing companies in Bangladesh.

To achieve the objective, two separate checklists are developed for mandatory and voluntary information. The mandatory checklist is prepared on the basis of previous studies and relevant regulations. The voluntary checklist is developed on the basis literature review. The level of disclosure of companies under study is determined by calculating the score through content analysis of the annual reports by using these two lists.

Both internal and external factors for this study are selected from literature review and experts' interview. The quantitative values of the internal factors are calculated from the annual reports through content analysis. On the other hand, quantifying the external factors is difficult, as there are no such available values in the literature. According to the concept of contingency theory, a questionnaire survey is conducted in order to collect the perception (about the influence of those factors on disclosure) of CFO or CS or other responsible person of the companies. The perceived values of influences of the external factors are considered as their quantitative value. After getting the values of both internal and external factors, regression analysis is done to identify the influence of those factors on level of disclosures of the companies under study.

Another research issue addressed in the present study is to explore whether the level of mandatory disclosures is associated with the level of voluntary disclosures. After reviewing literature, the notion has been developed that companies showing more mandatory information in the annual reports also provide more voluntary information and vice versa.

1.3 Objectives of the Study

The core objective of this study is to identify the factors affecting disclosures of the DSE- listed manufacturing companies in Bangladesh.

In order to achieve the basic objective, the following aspects of the study have been recognized:

a. determine the level of mandatory disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE);
b. determine the level of voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE);
c. explore whether there is any association between the level of mandatory disclosures and level of voluntary disclosures in the annual reports of listed manufacturing companies in Dhaka Stock Exchange (DSE).
d. recognize the factors that influence the disclosure of mandatory and voluntary information in the annual reports of listed manufacturing companies in Dhaka Stock Exchange (DSE).

1.4 Research Questions

The research objectives are guided by the following research questions.

i. What is the extent of mandatory disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?
ii. What is the extent of voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?
iii. Is there any association between the mandatory disclosures and voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?
iv. What are the factors that influence the disclosure of mandatory and voluntary information in the annual reports of listed manufacturing companies in Dhaka Stock Exchange (DSE)?

1.5 Contributions of the Study

Most of the previous disclosure studies on listed manufacturing companies in Bangladesh are either on mandatory disclosures or voluntary disclosures. There are limited studies focusing on both types of disclosures. Relation between both types of disclosures is unexplored in literature. Most of the empirical studies recognize companies' internal attributes as determinants of disclosures and have identified several important factors like size, profitability, CFO qualifications, ownership structure, industry practice etc. Few qualitative studies discuss about the role of regulations (Hasan et al., 2008), the professional bodies (Nurunnabi, 2015; Alam & Chowdhury, 2012), media (Islam & Deegan, 2008).There are other important external factors including the external shareholders; trade associations; tax authority; that apparently may have some impact on annual report disclosures, but their role has not been investigated yet. This study attempts to fill the gap in literature. The major findings from this research are listed below:

i. The listed manufacturing companies in Bangladesh are not fully disclosing the mandatory items in their annual reports. The average disclosure level is 75.12% in this study which is better than the previous studies (Akhtaruddin, 2005;Das, 2015; Hasan & Hosain, 2015).The improved scenario may be a reflection of the enhanced monitoring and enforcement activities by the BSEC. It has been observed that cement sector has the highest score (79%) and the jute sector has the lowest score (69%).

ii. The average level of voluntary disclosures of companies under study is very disappointing (39.18%) indicating their reluctance to provide additional information except the mandatory ones. However, this result is equivalent to the prior studies (Das, 2015; Hasan & Hosain, 2015; Nurunnabi & Hossain, 2012). Ceramic sector shows the highest score (61%) and jute sector provides the lowest score (8%) of voluntary disclosure.

iii. An attempt has been made to determine the relation between both types of disclosures in the annual reports. It has been observed that the level of mandatory disclosures has a positive impact on the level of voluntary disclosures.

iv. It has been found that along with some internal factors (like size and profitability of the company); some external factors (like regulatory bodies, award given by professional bodies, external shareholders, etc.) are playing positive role to the reporting behavior of companies under study. A significant finding of this study is that level of disclosures is negatively associated with perceived influence of trade associations. There are powerful trade associations operating in Bangladesh. Their role in disclosure environment has not been investigated yet (Nurunnabi, 2012). The present study attempts to through light on this area.

In this context the contribution of the present research to the existing knowledge lies in following areas:

i. In order to develop the reporting environment it is necessary to identify the current reporting status. Stakeholders may get a clear understanding about the extent of mandatory and voluntary disclosures regarding different sectors and different categories of information presented in the annual reports of the DSE-listed manufacturing companies.

ii. A positive association between mandatory and voluntary disclosures has been exploredin this study. This may help to give the stakeholders a reasonable assurancethat companies complying with the reporting regulationsalso provide necessary additional information about their activities.

iii. The present research is an extension to the existing literature by exploring the relationship between disclosures and the perceived influence of the external factors along with the internal ones.The concept of contingency theory has been applied for analyzing the relationship between annual report disclosure of a company and its environment. Datahave been collected directly from the persons involved in making annual reports regarding their perception about influence of the external factors on disclosures. This type of study is rarely available in relevant literature on Bangladesh context. Hence, this research can be used as a reference for future studies in developing countries.

iv. This study will help the regulators to understand the impact of various internal and external factors on the reporting behavior of listed companies. This may help to improve the mechanisms for ensuring a suitable environment for disclosure.

1.6 Operational Definition of Terms

Bangladesh Accounting Standards (BAS): IASs that are adopted by the ICAB to guide the recognition and disclosure of financial information.

Bangladesh Financial Reporting Standards (BFRS): IFRSs that are adopted by the ICAB to guide the recognition and disclosure of financial information.

Big four audit firms: The four largest international audit firms in Bangladesh, these are PricewaterhouseCoopers, Ernst & Young, Deloitte and KPMG.

Corporate Attributes: Features of a company affecting its disclosure practice such as; size, ownership structure, profitability etc.

Disclosure: The presentation of quantitative or qualitative economic information relating to an organization in the annual reports.

External Factors: Factors that affect the disclosure level of a company prevailing in the outer premise of the company. These include regulatory body, professional body, external shareholders, industry practice, media etc.

International Accounting Standards (IASs)/ International Financial Reporting Standard (IFRS): The set of rules prescribed by the IASB (former IASC) for the practice of accounting throughout the world.

International Accounting Standards Board (IASB): The international standard setting body that prescribes the accounting standards i.e. the IASs and IFRSs.

Institute of Chartered Accountants of Bangladesh (ICAB): The main professional body that governs the financial accounting practice in Bangladesh and adopts the IASs and IFRSs as BASs and BFRSs.

Internal Factors: Company attributes that influence the disclosure level in the annual report of a company.

Mandatory disclosures: The compulsory part of disclosures in the annual reports of the listed companies.

Bangladesh Securities and Exchange Commission (BSEC): The regulatory body that controls and monitors the operations of the stock exchanges in Bangladesh.

Voluntary Disclosures: The part of disclosures in the annual report of the listed companies which is presented without any mandatory requirements.

"A" Category Companies: Companies which are regular in holding the Annual General Meetings (AGM) and that have declared dividend at the rate of 10 percent or more in a calendar year. (Mutual fund, debentures and bonds are being traded in this category).

"B" Category Companies: Companies which are regular in holding the AGM but that have failed to declare dividend at least at the rate of 10 percent in a calendar year.

"N' Category Companies: All newly listed companies except Greenfield companies will be placed in this category and their settlement system would be like B-Category companies.

1.7 Structure of the Thesis

The structure of the thesis is organized in six chapters. Chapter one presents an introduction to the present study describing the background and motivation, objectives, research questions and contributions of the research. Chapter two describes the capital market and reporting environment in Bangladesh followed by reviews of the existing literature on determinants of disclosures. In Chapter three a summary of dominant theories of disclosures has been provided. This chapter also discusses the dependent and independent variables, the research hypotheses and the conceptual framework. In chapter four research methodologies, sources of data and sample collection procedures are described. Chapter five provides answers to the research questions. This chapter discusses about the extent of disclosures of the companies under study. This chapter also examines the association between mandatory and voluntary disclosures. After that relation between level of disclosures and potential factors that may influence disclosures is investigated. Chapter six discusses findings, implications and limitations of the study and a conclusion thereof.

1.8 Summary

The core objective of this study is to identify the factors affecting annual report disclosures of the DSE-listed manufacturing companies. It has been understood from the literature that existing disclosure practice is not satisfactory. General investors are suffering for the lack of adequate information in annual reports of the listed companies. It is necessary to recognize how reporting behavior of companies are influenced by different factors. From the previous studies it is understood that disclosure practice is influenced by internal company features and other external factors. Most of the empirical research in Bangladesh context investigates on the impact of internal factors on disclosure. But analysis of the influence of external factors is limited; few qualitative studies are available there. Also studies quantifying the simultaneous impact of both types of factors are rare. The present study argues that both internal and external factors are important for disclosure practice. This study investigates into three research issues; the current status of mandatory and voluntary disclosures of listed manufacturing companies in Bangladesh; the relationship between mandatory and voluntary disclosures and a quantitative analysis about the association of both internal and external factors with disclosures. The concept of contingency theory has been applied for this research. The findings may help regulators to improve the disclosure scenario in Bangladesh.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The present chapter is presented into two parts. In the first part a brief description has been given about the overall reporting premise that a listed company in Bangladesh needs to perform in. In the second part a review of previous literature on disclosures is presented. Thus Section 2.1 gives an overview of capital market and reporting environment in Bangladesh; Section 2.2 reviews the previous studies on disclosures; Section 2.3 provides a summary of the chapter.

2.1 Capital Market and Reporting Regulations in Bangladesh

2.1.1 Overview of the Capital Markets in Bangladesh

Capital markets control the flow of wealth from investors to the companies. A stable and strong capital market can play an important role to accelerate the industrial growth of a country. Although Bangladesh has a long history of capital market operation, the trading environment is yet to be steady. It has the lowest market capitalization (percent of GDP) in comparison to the other regional stock markets (India, Indonesia, Sri Lanka, Pakistan and Thailand). At the end of June, 2018, the market capitalization was 14.38 percent in Bangladesh comparing to Thailand 114.18 percent, followed by 77.41 percent in India, 44.84 percent in Indonesia, 25.41 percent in Pakistan, 20.29 percent in Sri Lanka (Bangladesh Bank, 2018).

Bangladesh has two automated stock exchanges; namely: Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE).Market capitalization of DSE and CSE at June, 2018 was Tk. 3812.29 billion and Tk.3123.52 billion respectively with indices of 5405.46 and 16558.51 respectively (Bangladesh Bank, 2018).

2.1.1.1Dhaka Stock Exchange (DSE)

The Dhaka Stock Exchange (DSE) is registered as a public limited company and is regulated by the Securities and Exchange Ordinance 1969; Companies Act 1994; Securities and Exchange Commission Act 1993.The capital market operation in this area was formally inaugurated in 1954as East Pakistan Stock Exchange. In the year 1964 the name was changed as Dacca Stock Exchange. On 16 August 1976, Dhaka Stock Exchange (DSE) has started trading in Bangladesh. The key events in the history of DSE include; starting of DSE General Index calculation in 2001; starting of CDS through CDBL in 2004; introduction of book-Building method in year 2010; starting of Next Generation Automated Trading System I 2014; got full membership of World Federation of Exchanges(WFE)during 2017, and in 2018DSE has transferred 25% of its share to Chinese consortium (Dhaka Stock Exchange Limited, n.d.).The major functions of DSE includes listing of companies, giving permission for share trading transactions, monitoring the capital market, disposing legal complaints etc. (Dhaka Stock Exchange Limited, n.d.). At the end of June 2018, the DSE contained 572 numbers of listed securities, including companies, mutual funds, government bonds, debentures and corporate bond. Among the listed companies there are banks, financial Institutions, insurance companies and other companies (Bangladesh Bank, 2018).

2.1.1.2 Chittagong Stock Exchange (CSE)

In 1995 the Chittagong Stock Exchange (CSE) started its operation as the second capital market of Bangladesh. Key events in the history of CSE include; floor trading started during October 1995; achieved full membership of the World Federation (WFE) in 1996; played an important role for opening of Central Depository Bangladesh Ltd. (CDBL) in 2004; started internet based trading system in 2004; introduced Next Generation Trading System (NGTS) in 2011 and became a demutualized Exchange in 2013 (Chittagong Stock Exchange Limited, n.d.). The total number of listed securities in Chittagong Stock Exchange (CSE) stood at 312 at the end of June 2018 with an issued capital of Tk. 654.06 billion (Bangladesh Bank, 2018).

2.1.1.3 The Devastating Turbulences:

Although many years have been passed after its commencement, the capital market in Bangladesh is still not stable. The regulatory environment in Bangladesh is not strong enough and the rules are not up to the date. Moreover, investors are not well protected, they don’t get proper information, and most companies are controlled by insiders leaving the risk of manipulating the stock price. During 1996-1997 there was an explosion in the market which devastated the confidence of investors. Bangladesh government has taken a Capital Market Development Program (CMDP) in order to improve the situation. The Central Depository Bangladesh Limited (CDBL) was established in 2000 for regaining the credibility of the market. The Central Depository System (CDS) operated by CDBL helps the investors in dealing with the share market activities. But unfortunately, during the year 2010 the market again had a devastating burst. The bubble began to be created in 2007 after the largest IPO at that time by Grameenphone Ltd. During the year 2010, DSE performed as the second-highest market in the world (Amit, 2016).

It was observed that main causes of these two turbulences were lack of intelligent long term investment, intention of the inexperienced investors to make easy money, flow of false information, spreading of rumor and weak supervision of the market. Individual investors were inexperienced and few gamblers and opportunist could take control of the market by gaining insider information. The activities of market manipulators and market intermediaries couldn’t be monitored due to the weak regulations and surveillances (Saha, 2012).

After these incidents government has taken some steps to restructure the market, such as demutualization of the Dhaka and Chittagong stock exchanges, installation of digitalized technology to monitor market operation, formation of an appellate board ford for settling the claims of investors, issuance of new rules for approaching the contemporary problems (Amit, 2016). Recently the DSE has sold 25% of its share to a Chinese consortium, comprising the Shanghai Stock Exchange and Shenzhen Stock Exchange (Ovi& Mahmud, 2018). It has been anticipated that the operation of capital markets may be improved after these reforms.

2.1.2 Regulatory Framework of Corporate Reporting in Bangladesh

Corporate financial reporting in Bangladesh operates within some regulatory and institutional frameworks, either mandatory or recommendatory or both. This framework (comprising laws, guidelines and interpretations; and institutions overseeing them) regulates forms and contents of the corporate reports. But there is no comprehensive set of rules containing the provisions of these regulations (Akhtaruddin, 2005). The major regulations relating to disclosures of the listed companies include the Companies Act 1994containing mandatory information requirements for balance sheet, profit and loss account and directors' report for all types of companies (except banks and insurance companies); the Securities and Exchange Commission Rules 1987(as amended in 1997) for listed companies stating disclosure requirements by the SEC ; and International Accounting Standards and International Reporting Financial Reporting Standards as adopted by the ICAB (Das & Chowdhury,2012) and the Corporate Governance Guidelines and Dhaka Stock Exchange (Listing) Regulations 2015.

2.1.2.1Mandatory Elements of Annual Reports of Listed Companies

According to the existing laws and regulations, major elements of an annual report published by a listed company include balance sheet or statement of financial position/balance sheet, profit and loss account/statement of profit or loss and comprehensive income/profit and loss account, statement of changes in equity, statement of cash flows, notes to the financial statements and accounting policies. Major mandatory reports include directors' report, auditors' report and corporate governance compliance report.

2.1.2.2 The Companies Act 1994

Bangladesh has inherited the Indian Companies Act 1913 since its independence. According to this act public limited companies had to publish their balance sheet, profit and loss accounts. But there were not any detailed description about the items to be included in the financial statements (Akhtaruddin, 2005).Later, the Companies Act 1913 was replaced by the Companies Act 1994. Like the earlier Companies Act 1913, the new version of Companies Act does not dictate detailed rules of recording and reporting of companies' financial activities. Although the act requires that companies should present a 'true and fair view' of their activities, but it neither defines nor explains this concept. Moreover, the act does not provide any clarification about its status regarding the application of International Accounting Standards (IASs) or International Financial Reporting Standards (IFRSs) (Hossain &Taylor as cited in Akhtaruddin, 2005). Companies Act 1994contains some sections regarding the annual report disclosure of companies. Section 181(1) states provisions for keeping necessary books of accounts; section 183 mentions rules for accounts and statements to be prepared for auditing; section 184 presents the contents of director's report and related rules; section 185 states the contents of balance sheet and profit and loss account.

2.1.2.3 The Securities and Exchange Rules (SER) 1987

The Securities and Exchange Rules were issued in September, 1987 to govern the capital market operations in Bangladesh. Later it was amended in 1997prescribing the mandatory requirements of following IASs/IFRSs. According to the rules of the Securities and Exchange Commission (SEC) [Rule 12(2), Gazette Notification of December 1997, amended the Securities and Exchange Rules1987], all listed companies in Bangladesh must publish their annual reports according to the provisions of Companies Act 1994 and all applicable International Accounting Standards (IASs)/IFRSs as adopted by the ICAB. The list of IASs/IFRSs till 2016 (which is relevant to the present studies) is provided in Appendix 2.1.

The related Schedule of section 12(2) of the rules states the contents of balance sheet, Part-II discusses the contents of profit and loss account and the requirements for cash flow statements are shown in Part-III and format of the auditor's report is shown in Form- B, Section 12(3).

2.1.2.4 The Corporate Governance Guidelines and Code

In order to improve and strengthen the corporate governance practice in Bangladesh, the government has issued the Corporate Governance Order in 2006. This guideline is expected to provide efficient supervision of the market and legal protection to investors (Sobhani, Amran,& Zainuddin, 2009). The approach adopted in the implementation of the guidelines is 'comply or explain', which means companies must follow the guidelines or give an explanation for the causes of non-compliance. Later, the Bangladesh Securities and Exchange Commission (BSEC) issued a notification on Corporate Governance Guidelines (CG Guidelines) on August 2012;

which supersedes its earlier version. The guidelines include requirements for the number and qualifications of independent directors, contents of director's report, appointment and duties of CFO, etc. On June 2018, the Commission again repeals its earlier Notification No. SEC/CMRRCD/2006-158/134/Admin/44, dated 07 August 2012 and, imposes with additional conditions, the "Corporate Governance Code" for the listed companies in Bangladesh. In the first CGG of 2006, there were 37 conditions under 5 heads: Board of Directors; Chief Financial Officer, Head of Internal Audit and Company Secretary; Audit Committee; External/Statutory Auditors; and Reporting and Compliance of Corporate Governance. In the CGG of 2012, there were 95 conditions under seven heads and one annexure, whereas in the CGC of 2018, there are 166 conditions under nine heads and three annexure. Over the years significant revisions have been made within these regulations in order to create a strong corporate governance environment among the listed companies (Bala, 2018).

2.1.2.5 Income Tax Ordinance 1984

After the independence in 1971, the Income Tax Act 1922 was adopted as the Income Tax Act of Bangladesh. Later it was replaced by the Income Tax Ordinance 1984. This ordinance was published in June, 1984 prescribing the rules regarding calculation of income taxes for individuals and organizations. The Ordinance doesn't provide any direct instructions but the provisions significantly influence the reporting practice of the companies, such as; section 20 to section 34 of the ordinance mention the heads of income and the rules for calculating income, section 35 states about the methods of accounting, section 43 provides rules for computing total income, section 79 requires the production of necessary accounts and documents.

2.1.2.6 Dhaka Stock Exchange (Listing) Regulations2015

On 30th June, 2015, Dhaka Stock Exchange (Listing) Regulations 2015 were issued as notification by the Bangladesh Securities and Exchange Commission in order to provide guidelines for listing of securities, direct listing, delisting etc for companies listed in DSE. The 2015 regulations provide some detail requirements for reporting by the listed companies. Annexure-10 of Schedule-A of this rule requires that companies should prepare their financial statements according to the provisions of the Securities and Exchange Rules 1987; some important ratios should be presented in the information document including liquidity ratio, profitability ratio, solvency ratio. The Dhaka Stock Exchange (Listing) Regulations 2015 also requires that companies should present preceding five years' statement of comprehensive income and statement of financial position, statement of cash flows, statement of changes in equity and aforementioned ratios. Besides, all extra-ordinary income should be shown separately while presenting the net income and Earnings per Share (EPS).

2.1.2.7 The Financial Reporting Act 2015

According to the ROSC A&A of World Bank (2003) there was a recommendation for creating an independent regulatory organization in Bangladesh to oversee the work of accountants and auditors. In this regard, the cabinet approved a proposal of Financial Reporting Act in the year 2013. Later, the Parliament passed the Financial Reporting Act (FRA) on September 6, 2015 in order to develop an autonomous regulatory authority named the Financial Reporting Council (FRC). The FRA 2015 has defined the objectives and functions of the FRC in supervising the activities of accountants and auditors of listed organizations.

2.1.3 Major Institutions Involved in Accounting Regulatory Frameworks

Some specific institutions take part in the regulatory environment regarding the accounting and reporting practice in Bangladesh, including the BSEC, the RJSC, the ICAB, and the FRC etc.

2.1.3.1 The Bangladesh Securities and Exchange Commission (BSEC)

The capital market in Bangladesh is controlled by the Bangladesh Securities and Exchange Commission (BSEC). Setting up a regulatory body for Bangladesh was initiated by the Ministry of Finance by passing the Securities and Exchange Rules (SER) in 1987, and subsequently establishing the Securities and Exchange Authority (Nicholls & Ahmed as cited in Hossain & Hossain, 2010). During June, 1993, the government founded the Securities and Exchange Commission (SEC) under the Securities and Exchange Commission Act 1993.During the year 2012, name of the commission was changed as the Bangladesh Securities and Exchange Commission (BSEC). The main functions of BSEC includes: listing and controlling the functions of DSE, CSE, stock brokers, merchant banks, underwriters, etc.; arranging training for intermediaries; arranging market research; and inspecting deceptive activities in security markets etc(Bangladesh Securities and Exchange Commission, n.d.). BSEC can take judicial actions in certain cases, such as; acting fraudulently in the purchase or sale of any security, providing false or incorrect statements or omitting material facts, deceitful trading practices etc. However, BSEC has been criticized for its weak monitoring and supervision system by many researchers (Islam & Deegan, 2008; Nurunnabi, 2012; Muttakin, 2012). Nurunnabi (2012) comments that continual political lobbying and government intervention hampers the enforcement of regulatory actions by the commission. It has been observed by earlier studies that BSEC doesn’t have enough workforces to oversee whether the listed companies are complying with the regulations or not. However, the ROSC of World Bank (2015) observed that after the crash in the year 2010 the BSEC has taken some major steps such as reformation of the organization and the market supervision activities; arrangements of special audits for companies by CA firms; introduction of corporate governance guidelines etc. The adoption of Capital Market Development Program (CMDMP) by the BSEC, if consistently pursued, is expected to produce positive results in improving the capital market operation in Bangladesh.

2.1.3.2 The Institute of Chartered Accountants of Bangladesh (ICAB)

The ICAB was established under the Bangladesh Chartered Accountants Order of 1973, as the highest supervisory body of financial accounting and auditing profession in Bangladesh. It works under the administration of the Ministry of Commerce of Bangladesh government. According to the Companies Act, compliance in the financial statements of a listed company should be verified and certified by the auditors as members of ICAB. The ICAB has received membership in various international and regional accounting bodies such as the International Federation of Accountants (IFAC), the International Accounting Standards Board (IASB), the Confederation of Asian and Pacific Accountants (CAPA) and the South Asian Federation of Accountants (SAFA).The institute is responsible for the introduction and implementation of IAS’s and IFRS’s in Bangladesh (The Institute of Chartered Accountants of Bangladesh, n.d.).The Technical and Research Committee of the ICAB selects, reviews, and modifies the IASs and IFRSs, as per the local requirements. However, the institute cannot enforce any accounting standards unless the Companies Act, 1994 incorporates the standard or the BSEC gives the institute legal power to do so. The adoption process of IASs/ IFRSs by the institute is sometimes criticized for including the various stakeholders in the standard setting process. This is possibly because the ICAB is directly linked with the Ministry of Commerce, and their decisions are political and based on close-door policy making rather than being engagement based (Nurunnabi, 2012). The ICAB has recently taken some initiatives after the stock market debacle in 2010 in order to improve its performance such as; the establishment of the Quality Assurance Department (QAD), introduction of various public interest subjects in its Continuing Professional Development (CPD) program etc. Also the institute arranges a national award giving ceremony for the best disclosures in annual reports of listed and non listed companies. The awards competition encourages companies to coordinate their reporting pattern as per the national, regional and global practice (Chowdhury, 2012).But ICAB's objective to implement IFRSs is yet to be achieved due to some drawbacks such as; shortage of Charted Accountants, lack of efficiency and integrity among accountants and auditors, absence of strong regulations etc.

2.1.3.3 The Registrar of Joint Stock Companies (RJSC)

It is the supreme body that provides the permission for formation of companies in Bangladesh. It was primarily established in Chittagong under the Ministry of Commerce of Pakistan which was shifted to Dhaka later in 1962. The RJSC registers all types of organizations including companies, partnership firms, societies etc. as per the relevant regulations (The Registrar of Joint Stock Companies, n.d.)**.**According to the Companies Act 1994 a listed company must submit its annual report to the RJSC. It has been claimed that many companies did not follow the instruction and the RJSC did not take any strict action against them (Hasan et al., as cited in Nurunnabi, 2012). It has been revealed by a report of World Bank published in the daily Prothom Alo that ninety percent of the registered companies do not provide financial statement to the RJSC and they are not punished for this by RJSC ("Ninety percent company", 2015).However, poor enforcement of existing laws, lack of efficient manpower, ambiguities among the rules regarding disclosure etc. are creating the situation worse.

2.1.3.4 The National Board of Revenue (NBR)

The National Board of Revenue (NBR) is the main body for tax management in Bangladesh. It collects tax revenues on behalf of the government. It was created by the Ministry of Finance under the National Board of Revenue Order 1972. Later, the NBR was restructured through Act No. 12 of 2009. Companies have to provide financial information about their activities to the NBR when necessary. The NBR may provide tax holidays, deductions etc to the reporting companies on the basis of the information. There are some regulations in the Income Tax Ordinance 1984 about the recording and reporting of some items in the financial statements. The NBR also issues new rules and amendments to the ordinance. The listed companies usually follow the rules as prescribed by the tax authority while preparing the annual reports. If any company does not comply with the prescribed rules, the NBR can refer the case to ICAB for disciplinary actions (Word Bank, 2015).

2.1.3.5 The Financial Reporting Council (FRC)

The stock market scam prompted the demand from the stakeholders and the people in general to form a regulatory body to monitor the activities of the auditors. The Financial Reporting Council (FRC) was established by the Financial Reporting Act (FRA), 2015 under the guidance of the Ministry of Finance. It regulates the accounting, reporting, auditing and actuarial professions in Bangladesh.The first official idea of Financial Reporting Council (FRC) came from the Report on Observance of Standards and Codes (ROSC) on Accounting and Auditing by the World Bank in 2003, regarding the implementation of IAS and ISA in the disclosure practice of the public limited companies.The main functions of the FRC include; promoting excellence in the reporting (both financial and nonfinancial) by the listed companies; improving the quality of accountant and auditors; etc. It is expected that establishment of the FRC will have a significant impact in developing the financial reporting environment in Bangladesh (Siddiqui, 2018).

2.1.4 The World Bank Reports about the Disclosure Environment in Bangladesh

The Report on the Observance of Standards and Codes - Accounting and Auditing (ROSC A&A) program is a combined effort by the World Bank and IMF in order to improve the financial structure of the member countries. The ROSC of World Bank (2003) commented that in Bangladesh the institutional and regulatory structure for the accounting and auditing practice is weak; which, in many cases, don’t match with the global standards (World Bank, 2003). The ROSC, 2003 observed that in Bangladesh there were a lack of contemporary regulations; both the RJSC and the BSEC were suffering from expert manpower and modern technology; the ICAB were not performing efficiently.

The second Bangladesh ROSC A&A, 2015; reported that after the stock market turbulence of 2010 the activities of the BSEC and the ICAB have been improved, but there is not much upgrading in the activities of the RJSC, the Central Bank and the monitoring cell of the Ministry of Finance. The report also mentioned that there is a low demand of professional accountants among the organizations which is mainly due to the poor financial reporting framework and lack of corporate governance.

2.1.5 Voluntary Reporting Premise in Bangladesh

Along with the regulatory requirements, listed companies throughout the globe also provide some additional information in the annual reports as voluntary ones which mainly include the corporate social responsibility reporting. Now-a days some of the listed manufacturing companies are publishing Global Reporting Initiatives (GRI) based sustainability reports as voluntary disclosure (Akhter & Dey, 2017).

Although, in Bangladesh reporting of corporate social activities is not mandated by the Companies Act 1994; listed companies are encouraged by the government in this regard. During 2011, the government issued a new SRO, 2011 allowing a maximum threshold of Tk. 80 million or 20 % of total income of the companies for the 10 % tax rebate on the CSR activities (Khan et al., 2013). Till to date, the SRO issued in 2011 states the government's concern with a slight amendment made to in 2012 and 2014.But that doesn't require mandatory disclosure of CSR related information in the annual reports. Previous studies show that most of the listed manufacturing companies in Bangladesh are reluctant to disclose additional information beyond mandatory requirements. It is claimed that Bangladeshi companies are forced to disclose more in addition to the mandatory requirements due to the pressure created by international buyers and international organizations like World Bank, International Monetary Fund, multinational companies etc. (Belal &Cooper, 2011).

2.2Overview of Previous Studies

This part reviews the previous relevant research on corporate disclosure in order to reveal the gap in literature and to develop a suitable research methodology for the current study. Disclosure in accounting literature means to communicate economic information about a company's performance and financial position to the users (Healy & Palepu, 2001). In modern times corporate disclosure refers business report containing both the financial and nonfinancial information. The term ‘business report’ has been used by both the AICPA and ICAS (Beatite, 2000). According to disclosure motivation, two types of information can be found in the annual report of an organization; that is whether the information is required by law (mandatory) or is at the discretion of the management (voluntary).Tian and Chen (as cited in Arifin, 2014) observed that motive of mandatory disclosures is to apply rules and regulation like securities law, accounting principles, etc. while communicating information of organization to the interested parties. Whereas voluntary disclosures reflects the self interested dissemination of information by the organizations for maintaining image of the company and connection with the shareholders. They also opine that mandatory disclosure is published in annual report and interim report at a fixed time of the year, on the other hand voluntary disclosure can be published by annual report, booklets and websites throughout the accounting period.

Both the categories and factors influencing disclosure have been important issues in accounting literature. In the following paragraphs a review of the existing literature on the nature, environment and determinants of corporate disclosure are discussed. Later gaps in the existing literature have been identified in order to outline the main concerns for the current research.

2.2.1 Association between Mandatory Disclosures and Voluntary Disclosures

It is assumed that companies provide additional information in their annual report along with the legally required ones in order to avoid information asymmetry between management and shareholders. Dye (1986) comments that mandatory and voluntary disclosures may be considered as substitute or complementary to each other. He opines that companies with better mandatory disclosures also provide more voluntary information if the relation is complementary and vice versa.

Al-Razeen and Karbhari (2004) have conducted a study about the relation between mandatory disclosures and voluntary disclosures. They use three separate indices- mandatory disclosure; voluntary disclosure that closely relates to mandatory disclosure and voluntary disclosure that is not closely related to mandatory disclosure. Their study is on Saudi Arabian’s companies. By using a pair-wise correlation analysis they find that companies tend to provide additional (voluntary) information when it is closely related with the mandatory information. They comment that if there exist a better understanding between management and board of directors in preparing the annual reports, there should be a positive relation between the two types of disclosures.

This statement has been supported by Mokhtar (2010) who finds a positive association between mandatory and voluntary risk reporting. He uses a spearman correlation on the annual report data for 2006 and 2007 of Egyptian companies. He opines that the positive relation reflects that board and management of the companies have a good co-ordination while publishing the annual reports.

In a study on Tunisian firms during the period of 2003 to 2008, Chakroun and Matoussi (2012) also observe the relation between voluntary disclosures and mandatory disclosures in annual reports of the companies. They claim that in companies where the board is independent to the management there is a tendency to publish more voluntary information that are closely related to the mandatory ones.

It has been observed by Al-Htaybat (2014) that government may codify the voluntary disclosure practices among the companies in order to set new mandatory requirements. By examining the mandatory requirements introduced in Jordan during the year 1998 he finds voluntary reporting practice may lead to the introduction of new mandatory regulations for disclosures.

In the context of Bangladesh studies attempting to find whether any association exists between the two types of disclosures are rare. It is important to find the relationship due to two reasons; to uphold the image of the listed companies in the market and another is shareholders may be assured that companies which provide adequate mandatory disclosures also provide sufficient additional information about their activities. Another point is; the relation between the board and the management may be understood from the association of both types of disclosures.

2.2.2 Organizational Environment for Reporting Practice

The factors that prevail in the inner and outer premise of an organization and affect its operation can be referred as the organizational environment. Ownership structure, management body, human resources & physical assets, goodwill etc. of an organization represents its internal environmental factors. Demographic attributes (including economy, political status, social culture, technological advancement etc.) of the country or region in which an organization is operated also influence its activities. Moreover, different aspects (comprising competitors, buyers, suppliers, strategic partners, regulators etc.) of the industry affect the operations of an organization (iEduNote, n.d.).

Researchers in the previous studies have acknowledged (either hypothetically or empirically) that there is a relation of the accounting practice of an organization with its environment (Elsayed, 2008). Choi and Mueller (2011) recognize that disclosure rules and behavior are influenced by source of finance, legal systems, political and economic ties, level of economic development. They comment that organizations in developing countries tend to have a low disclosure practice due to the weak enforcement system, inefficient capital market, family ownership, etc.

Daft (2018) considers all elements in the outer premise influencing the organization's activities as the organization environment. He identifies two different sets of external environment of an organization; task environment (including the industry, market, raw materials, and perhaps the human resources and international sectors) and general environment (comprising the government, financial sector, socio-economic and political situation). Daft (2018) opines that task environment may directly influence the organization whereas general environment affects it in an indirect way.

2.2.3 Studies on Internal Factors of Disclosure in Other Countries

Many previous studies reveal that corporate accounting and reporting practice is affected by factors inside the organization and outside the organization. During 1961, Cerf pioneered research focusing on the factors affecting the scope of disclosure in United States. Later many researchers (Singhvi & Desai; Buzby; Cooke; Lang & Lundholm; Wallace et al., as cited in Umoren, 2008) investigate the relationship between disclosure and company characteristics. Although results vary in different studies they acknowledge the impact of company characteristics on the information disclosed.

Researchers of more recent period also continue to study the determinants of corporate reporting. By comparing Canadian and US companies, the study of Buhr and Freedman (2001) focuses on the disclosure practice of organizations for a period of two years (1988 & 1994). This research uses content analysis method to study the reporting practice in the annual reports, security exchange filings and environmental reports. The study explores that industry type and size of an organization have association with its social responsibility disclosure.

Chau and Gray (2002) make a study on companies in Singapore and Hong Kong in order to identify the influence of ownership structure on voluntary disclosure. The linear multiple regression analysis reveals that companies having more outside owners disclose more than the companies with more insider and family-owners.

Glaum and Street (2003) explore that German companies which are audited by Big 5 auditing firms and companies having cross-listings on US exchanges provide more disclosure. They investigate the tendency of compliance with IFRS and GAAP by German companies and find that compliance ranges from 41.6% to 100%. They reveal that reporting practice of a company does not have any important relation with its age, ownership structure, profitability, industry type, country of origin and growth.

By using a mandatory disclosure index Owusu-Ansah (2005) examines the relation between disclosure and companies' internal features in the context of New Zealand. Regression analyses reveal that the extent of corporate mandatory disclosure is positively associated with the size, age, auditor type, profitability, liquidity and audit committee of a company.

Grüning (2007) evaluates the quality of disclosure by companies in German and Poland based on their annual report for the year 2002. In this study he uses structural equation modeling with a correct weight matrix. He explores that factors like home country, firm size, cross-listing and industry of an organization affect its disclosure either indirectly or directly.

The research of Overfelt, Deloof, and Vanstraelen (2009) argues that if there is no regulation, managers of self-regulated companies disclose significant information after considering the cost and benefit of disclosure. They discuss financial reporting practice in the premise of Belgium prior the first World War, when reporting were not compulsory. They use disclosure checklist and regression method for data analysis.

The researchers also find that universal bank affiliations, bond financing and stock returns would affect financial reporting practice of organizations in that time.

Iatridis (2008) examines several disclosure information (like risk exposure, changes in accounting policies, use of international financial reporting standards etc.) in the financial statements of UK firms. He uses Kruskal-Wallis (K-W) test and binary logistic regression. The result shows that size, profitability, growth and leverage of a firm are positively related with disclosure. The researcher opines that firms provide information with an intention to show the market that they are sensitive to the demand of the stakeholders. They are inclined to disclose information for assuring the members of the market about the reliability of their accounting policies.

The study of Hossain and Hammami (2009) investigates about the factors influencing voluntary disclosure practice in the context of a Middle East country- Qatar. They develop disclosure checklist to analyze the content of annual reports of twenty five listed firms in Doha. Multiple regression analysis reveals that level of voluntary disclosure is positively influenced by age, size, assets-i-place and complexity of operation. They find profitability doesn’t explain the variability of disclosure level between firms.

The objective of the study of Gaoand Kling (2012) is to quantify the relation between corporate governance and external audits with mandatory disclosure. The study utilizes the Information Disclosure Evaluation Index compiled by all listed firms on the Shenzhen Stock Exchange from 2001 to 2007. On the basis of factor analysis, the finding shows that firms’ compliance disclosure is positively associated with external audit, improved internal governance and external governance environment.

Lan, Wang, and Zhang (2013) offers an in-depth analysis of the determinants and features of voluntary disclosure. They study on the listed Chinese firms’ annual reports and find that size, assets-in-place, leverage and return on equity of an organization are positively related with its disclosure whereas auditor type and sophistication of the intermediary and legal environment have negative influence on disclosure.

The study of Bhattacharyya (2014) examines the relation between social and environmental reporting and internal features of organizations by using disclosure indicators based on some Global Reporting Initiative (GRI, 2002) guidelines in Australian context. Regression analysis results indicate that the extent of total disclosure is not related with the age of the company and size of their external auditor, while it is significantly and positively related with the size of the organizations. Surprisingly, companies with negative profitability rate provide significantly higher social information.

Many researchers have investigated how disclosure in developing countries is affected by different factors. A brief discussion on some of these studies is given below:

Haniffa and Cooke (2002) observe how cultural factors (race and education) and company's governance with other company specific characteristics (as control variables) influence the voluntary disclosure. Their study is made on Malaysian context. The researchers use an unweighted disclosure index and regression analysis in order to analyze the contents of the annual reports of some listed companies. The results indicate that voluntary disclosure is significantly influenced by some governance factors (the existence of non-executive director as the chairman, dominance of family members on boards) and cultural factors (proportion Malay directors on board).

Aksu and Kosedag (2006) observe the transparency and disclosure (T & D) practices of 52 large and liquid Istanbul Stock Exchange firms in three categories of disclosure (ownership structure and investor relations; financial transparency and information disclosure; board and management structures and processes). The results indicate that the level of voluntary disclosure in the annual reports and websites of the sample companies are weak. They find that while size, profitability and market-to-book ratio explain the differences in the scores of disclosure relating to the ownership structure, board and management sub-categories as well as in overall scores.

Barako, Hancock, and Izan (2006) conduct a study to identify the relation between corporate governance and company specific attributes with voluntary disclosure. This is a longitudinal research covering period of ten years in the context of Kenya. The results reveal that companies having larger size, higher leverage, audit committee; higher proportion of institutional and overseas ownership provide more voluntary information. But companies having higher proportion of non-executive directors provide lower disclosure.

Hassan, Giorgioni, and Romilly (2006) have investigated about the factors affecting accounting disclosure practice of listed nonfinancial companies in Egypt covering a period of eight years (1995 - 2002). They observe that reporting practice among Egyptian companies has improved over the years. The result shows that mandatory disclosure is positively associated with stock activity, profitability whereas voluntary disclosure is positively related with size and profitability. Companies under private sector disclose both types of information more than the public companies.

The study of Mutawaa and Hewaidy (2010) measures the association between level of compliance disclosure with type of industry, type of auditor, and age of the company. It has been revealed that the companies under study have an average compliance level of 69%. Regression results find that only company size and type of industry have strong positive association with IAS-required disclosures. Other explanatory variables are found statistically insignificant.

Norwani, Mohamad, and Chek (2011) conduct a research for some cases (both inside and outside Malaysia) with regard to the relation between financial reporting and corporate governance. The discussion shows that influence of corporate governance on financial reporting is unavoidable. The researchers comment that enforcement of laws and monitoring must be confirmed for establishing good corporate governance in organizations.

The study of Galani, Alexandridis, and Stavropoulos (2011) explores how characteristics of a listed nonfinancial company in Greece affect its level of mandatory disclosure. The researchers use an unweighted disclosure index and identify that the average level of disclosure is eighty six percent among the companies. Among the various company characteristics only company size is found to have a positive relation with the mandatory disclosure and other factors including profitability, age, board composition, liquidity have insignificant influence.

The primary objective of the paper of Mardini, Tahat, and Power (2013) is to examine the relation between segmental disclosures (both mandatory and voluntary) with company characteristics in Jordan. The researchers study the annual reports of sixty seven companies for the year 2009 and found that the sample companies disclose 60% of segmental items specified in the specified standard. The result reveals that company size, profitability and the audit firm have significant positive relation with disclosure whereas industry type, liquidity or leverage of the company don't have any association with disclosure.

Uyar, Karamahmutoğlu, and Bayyurt (2013) investigate about the factors influencing the extent of voluntary disclosure by the listed manufacturing companies in Turkey.By using the Ordinary Least Square (OLS) and Two-Stage Least Squares (2SLS) regressions analysis the researchers identify that firm size, corporate governance factors, size of the audit firm, and some ownership structure factors (proportion of independent directors on the board and institutional/corporate ownership) influence the voluntary disclosure practice positively. On the other hand, voluntary disclosure practice has significant negative relation with ownership diffusion and leverage of the company.

The objective of the study of Alfraith and Almutawa (2014) is to investigate the association between firm-specific characteristics (namely: firm age, liquidity, leverage, firm size, profitability, audit quality, and industry classification) and corporate mandatory financial disclosures of some listed firms in Kuwait. The results show that a several firm attributes, i.e., firm age, leverage, size, profitability, and audit quality have significant and positive relation with disclosure.

Adeknami, Adewumi, and Adeyinka (2015) study the determinants of socio-environmental accounting in the annual reports of listed firms in Nigeria for nine years (from year 2005 to 2013). They found that firms' size, profitability and number of analysts are the major factors that have positive influence on socio-environmental reporting of listed firms. However, socio-environmental performance has significant negative influence on socio-environmental reporting.

2.2.4 Studies on External Factors of Disclosure in Other Countries

Corporate disclosure practices are motivated by internal corporate attributes along with the external forces. It is also observed that internal factors influence the disclosure practice in developed countries; whereas, in developing countries disclosure practices are primarily shaped by country level factors (Morris, Susilowati, & Gray, 2012). Accounting rules and practices of a country is shaped up by the existing cultural, historical and institutional factors (Saudagaran & Meek as cited in Mokhtar, 2010). Many researchers have claimed that disclosure practice of a company is affected by the factors prevailing in its outer premise and thus differs among countries due to the variations in business environment (Haniffa &Cooke, 2002). Kothari (2000) thinks that considerations for greater investor protection and transparent accounting standards are necessary while taking standard-setting decision in a country.

In the study of Gibbins, Richardson, and Waterhouse (1990) twenty persons are interviewed who are either involved intimately in disclosure decisions or involved as outsider consultants or analysts. Results show that a firm's disclosure behavior is motivated by internal or external factors. They note that disclosure position is influenced by (and may influence) several internal organizational factors, such as the firm's size, history, financial performance, attitude of management, management structure etc. The researchers find some external institutional and market factors (standards and regulations, credit unions and cooperatives, industry norms for disclosure, competition etc.) that also influence a firm's disclosure position.

After reviewing the previous literature, Nobes (1998) identifies that a large number of factors may be responsible for the difference in international practices of financial reporting, such as; nature of business ownership and financing systems, colonial inheritance, taxation, inflation, level of education, age and size of accounting profession, stage of economic development, legal systems, culture, geography, language, history, political systems, religion, etc.

According to Saudagaran and Diga (1999) an organization's accounting practice is a result of the existing circumstances and environmental factors. They opine that such practice and standards should be analyzed on the basis of the prevailing factors.

Cooke and Wallace (as cited in Vlachos, 2001) have identified two large groups of the environmental influences on accounting. One group is internal environment (comprises of goals of society, stage of economic development, legal rules, economic systems, political systems, level of education, etc.). Other group is external environment (encompassing colonial history, International Accounting Standards, impact of TNCs, etc.).

Adams, as cited in Bebbington, Higgins, and Frame (2009) suggests from the literature review that some factors are associated with reporting activity, such as;

corporate characteristics (size, profit, industry group, share trading volume, debt to equity ratio, price and risk, political contributions); internal factors (views of company chair and board of directors, corporate structure and governance procedure, presence of corporate social responsibility or reporting committee, stakeholder involvement in organization, active strategic posture, length of management decision horizon, perceived costs and benefits) and contextual factors (country of origin, social and political change, economic cycles, cultural context, specific events, media pressure, stakeholder power).

Bushman, Piotroski, and Smith (2004) infer corporate transparency into two issues. One is financial transparency that confines the timeliness and intensity of financial disclosure, their explanation and distribution by analysts and the media. Second factor is the governance transparency representing the intensity of governance reporting used by external investors for holding directors and officers accountable. The researchers examine whether these factors differ with countries' judicialsystem and political economies. The multivariate analysis shows that the governance transparency is primarily related to a country's legal system, whereas the financial transparency is mainly related to political economy.

Boolaky (2004) observes that many factors may influence the accounting systems and practices in a country. He analyses the affect of environmental factors such as; the political (legal structure, political system, enforcement of standards, international intervention etc.), economic (government priorities, inflation rate, capital market, user need etc.), social (status of accounting profession, social attitude towards business and government, Human Development Index etc.) and cultural (language, religion, cultural attitude towards profession etc.) on accounting. He suggests that policymakers should consider the abovementioned factors while setting the accounting principles of a country or when adopting international accounting standards.

Mirshekary and Saudagaran (2005) explore that some factors are responsible for the development of financial disclosure practices in a country including legal structure, taxation systems, economic development, etc. The importance of regulatory enforcement system on the disclosure practice in a country has also been admitted by Campbell (as cited in Barakat, Perez, & Ariza, 2015). He opines that in a situation of coercive and normative institutional pressure companies becomes more responsible to provide information.

Al-Ulis (2006) conducts a cross-sectional study in the Middle East context. He tries to identify the relation between environmental factors with the mandatory reporting requirements (the IFRSs) of the listed companies of different countries in this region. He finds that country related factors are more important to influence the disclosures practice of a company instead of its specific features. The level of foreign direct investment, capital market size and country governance regime in a country have significant association with disclosure practice.

Morris and Gray (2007) investigate the determinants (both firm-level and country-level) of corporate financial reporting transparency in the annual reports of 434 companies of 12 Asian Countries. By analyzing data through weighted least squares regression, results show that firms' complexity, debt-raising, auditor type, international focus and foreign stock exchange listings are consistently related with transparency. Also a country's legal system and standards enforcement systems are important to explain the difference in transparency among countries.

Huiyun and Peng (2011) analyses the influence of some internal and external factors on voluntary reporting of some Chinese manufacturing companies. Internal factors include economic status and corporate governance of company, while external factors contain regulatory punishment, audit opinion, the growth of local market and extent of industrial competition. The researchers use the data of year 2009 of 212 companies for the study. By using structural equation modeling the study reveal that companies with more favorable financial condition, better structure of corporate governance, more effective external supervision provide higher level of voluntary disclosure.

In the context of Egypt, Elsayed and Hoque (2010) examine the influence of international environmental factors on the voluntary disclosure level of a company. The research is based on a perception study among the Chief Financial Officers of one hundred listed non-financial companies. By a multiple regression analysis of the influence of international factors (socio-political institutions, accounting standards and financial institutions) on disclosure, the researchers claim to identify a significant and positive relationship.

Adams (as cited in Sobhani, Zainuddin & Amran, 2011) summarizes a list of factors that influence corporate social and ethical disclosure, from the extant literature, including corporate attributes (size, industry group, age, financial performance, share trading volume and debt/equity ratio etc.); general contextual factors (country of origin, political background, economic condition, cultural environment, ethical relativism, time, pressure groups etc.); and internal contextual factors (the company chair and board of directors, corporate social reporting committee, corporate structure and governance systems, stakeholder involvement, participation of accountants, perceived costs and benefits of reporting , corporate culture etc.).

After reviewing the literature, Branson and Muiz (2011) reveal that financial reporting structure in a country is a result of many environmental factors such as; economic, political, legal and tax, professional, business, cultural factors, level of education, and international factors. The researchers comment that variations in these factors contribute significantly to the harmonization of accounting practices.

Omar and Simon (2011) investigate the reporting practice of the listed companies in Jordan after major reforms have been made in the country. They observe that introduction of the new regulatory structure and the existence of Jordanian Securities Commission (JSC) has resulted in improved disclosure level by the companies. The multivariate analysis showed that firm size, profitability, audit firm size, industry type and listing status, significantly influence the level of a company's aggregate disclosure.

The study of Al-Jabri and Hussain (2012) investigates the degree of compliance by listed companies in Oman with the IASs requirements. They observe that the level of compliance among the companies is 79%. The researchers opine that probable causes of noncompliance include the cost of compliance for the companies and insufficient mechanisms of enforcement, lack of professional training in the national premise etc.

The study of Chakroun and Matoussi (2012) analyzes how voluntary disclosure is associated with the external governance mechanisms (regulatory reform, competition on the market of goods and services) and internal governance mechanisms (ownership structure, composition of the board of directors) in Tunisian context. Reporting environment of the country is fragile with a very high concentration of family ownership and weak protection for investors. The results conclude that regulatory reform, combination of managerial functions, competition in the market of goods and services, board size and managerial ownership are positively related with the voluntary disclosure.

Černe (2009) opines that a country's political system or stage of economic growth affect size and complexity of businesses enterprises, level of inflation, financing system and which will, in turn, affect the system of management, the status of accounting profession and so on.

In a study Ali and Rizwan (2013) claim that external institutions (government, NGOs, investors, international buyers, media, industry & competitors practice etc.) can exert normative, coercive pressure and mimetic pressure on a firm's Corporate Social and Environmental Disclosure (CSED). Companies try to handle these different types of pressure by disclosing social information in order to meet the expectations of particular stakeholders. The researchers explain their argument by discussing two cases from Pakistan and Bangladesh. Finally they comment that companies in both cases tend to be more sensitive to the institutional pressure in disclosing their social and environmental information.

Rubensen and Schagerlind (2014) investigate whether there is any relation between the degree of compliance and country related issues. In this study a comparison is made among Swedish and British listed companies. The multiple regression analysis reveals that due to the variations in culture and law enforcement systems among countries, considerable variances in the degree of compliance among companies may occur.

The study of Mateescu (2015) investigates both company related and country related factors influencing the corporate governance voluntary and mandatory reporting of the listed companies from four European emerging countries. The researcher finds that rules and regulation of a country strongly and positively influence the level of compliance and transparency of a company whereas voluntary disclosure is usually dependent on the company's internal rules. Among the company characteristics, size and profitability tend to have positive relation with both types of disclosure.

Cooper, Raman, and Yin (2018) state that the firm's voluntary CSR disclosures could be associated with a form of cheap talk whereby the firm has created an impression of responsible social performance but failed to make the necessary effort or engaged in only symbolic efforts. As a result investors may have an overly positive impression about the firms' social performance which may not be always true.

The study of Gallego-Alvarez, Lozano, and Rodriguez-Rosa (2018) aims to investigate whether companies' environmental disclosure is adjusted to the international standards of the Global Reporting Initiative (GRI). The researchers identify that environmental disclosure differs according to the geographical zones and industries of the companies.

Comyns (2018) claims that the internal organization of the MNC (typology) is expected to be a significant factor of Green House Gas emissions reporting beside the concept of legitimacy theory, stakeholder theory and institutional pressure. She also comments that unless GHG emission reporting is not regulated by all the countries in a standardized way, there is a chance that multinational companies may tend to make discrepancies among their reports in different geographical regions.

Thus from the literature, it has been understood that accounting disclosure practice of a particular company is affected by various factors prevailing in that particular country as well as in the global arena.

2.2.5 Previous Studies on Disclosure Practice in Bangladesh

This section presents some relevant disclosure studies on the listed manufacturing companies in Bangladesh. Most of the research focuses on the association of a company’s internal attributes with its disclosure practice. It has been understood from these studies that the level of disclosure (both mandatory and voluntary) in Bangladesh has never been satisfactory, as shown in Table 2.1.

Table 2.1: Level of Disclosure in Bangladesh in Previous Studies

Author(s)	**Type of Disclosure**	**Disclosure (%)**
Akhtaruddin (2005)	Mandatory	43.53
Hossain (2006)	International Accounting Standards	69.05
Khan et al. (2013)	Corporate Social Responsibility	22.3
Uddin and Safiuddin (2015)	Narrative reporting	50.34
Hasan and Hosain (2015)	Mandatory and voluntary	55(Voluntary) & 50.62(mandatory)
Sufian (2016)	Mandatory	59.28

Note. Prepared by the researcher from literature review

Some of those studies conclude that external factors may explain the causes of such insufficient disclosure. Few other researchers have discussed about the influence of some external factors but attempts to quantify this influence are rare in literature. After reviewing the literature the present researcher determines the gaps in disclosure studies on Bangladesh and the area to be focused in this study.

2.2.5.1 Internal Factors and Disclosure Practice in Manufacturing Companies of Bangladesh

Akhtaruddin (2005) examines the level of mandatory disclosures by 94 listed manufacturing companies in Bangladesh. He also evaluates how different internal factors of a company tend to affect its mandatory reporting practice. He develops an unweighted disclosure index based on the main regulatory framework in Bangladesh (including the Companies Act 1994, disclosure rules of the stock exchanges, and the adopted IASs) and finds that the average compliance rate is 44%. The ordinary least square regression analysis reveals that mandatory disclosure of a company is not affected by its age and industry type, but company size and profitability indicate a positive influence on disclosures. He comments that strong enforcement of laws would play an important role to improve disclosure rate in Bangladesh. The study focuses only on mandatory disclosures and its relation with four specific company features. But the researcher opines that the disappointing level of disclosures may be due to the organizations' culture of secrecy, lack of supervision by the regulatory bodies and further study is needed to this area.

The relation between corporate characteristics and Corporate Social Responsibility Disclosure (CSRD) in annual reports of listed companies in Bangladesh is also examined by Sufian (2012). In this study the annual reports published by 70 nonfinancial companies in 2010 are analyzed. The result reveals that disclosure rate is very poor among the sample companies. Market capitalization has important influence on CSRD while total assets, profitability, MNC affiliation and listing age are identified as insignificant variables. However this study is confined to the social responsibility disclosures which are mainly voluntary in nature, while factors affecting mandatory disclosures are omitted.

The study of Khan et al. (2013) examines the impact of corporate governance characteristics of a company on its social responsibility reporting practice. The researchers examine the annual reports of companies for five years by using a disclosure index and multiple regression analysis. Results find a positive relation of social responsibility disclosure with the export orientation, public ownership, foreign ownership, board independence and presence of audit committee. This study focuses on social responsibility reporting, how corporate governance characteristics affect mandatory disclosures is not examined in this study.

Hasan and Hossain (2013) reveal that profitability, multilisting, earning per share, internationality and international link of the audit firm have significant influence on financial disclosures of listed companies in Bangladesh. Contrarily, asset size, number of shareholders, year of listing, ownership structure, market category, audit fee, and leverage do not have any significant influence on disclosure. Researchers of this study only focus on the financial type of disclosures and avoid the nonfinancial type of disclosures which are very important part in the annual reports.

The study of Muttakin, Khan, and Subramaniam (2015) explores the association between firm size, profitability, board diversity (namely, director gender and nationality) and the level of Corporate Social Responsibility (CSR) disclosures in Bangladesh. They use data of 116 listed nonfinancial companies for the period of 2005-2009. Results indicate that size, profitability and foreign directorship have a positive influence on disclosures. On the other hand CSR disclosures are negatively associated with family ownership and number of female directors on the board. The focus of this study is limited to the disclosures of corporate social responsibility. The researchers do not consider mandatory disclosures.

Uddin and Saifuddin (2015) evaluate the relationship of company features with narrative reporting disclosures in the annual reports of 55 selected companies listed in Dhaka Stock Exchange. The researchers reveal the level of narrative reporting among companies is very poor. The study finds no statistically significant association of size of the companies, profitability and agewith the level of disclosures.

The focal point of the study of Das (2015) is to recognize amount and determinants of corporate internet reporting practices (including both mandatory and voluntary items) in Bangladesh for a sample size of 234 companies from different sectors. By using multivariate analysis, the result shows that both types of disclosures have significant positive association with audit firm's international link, dual leadership structure and independent directors in the board; but have significant negative association with profitability measured by ROE. Voluntary disclosure has a significant positive relation with firm size, industry type and multinational parent but mandatory disclosure doesn't have any significant relation with those factors. Both types of disclosure have non- significant relation with ownership structure, company age and size of the board. The strength of this study is that it covers both types of disclosures through the internet. But the researcher identifies the relation of disclosures with only company specific attributes, influence of various external factors are unexplored.

Sochi (2016) empirically examines the impact of firm characteristics on the extent of financial disclosure of listed firms of Dhaka Stock Exchange. The researcher conducts a five year multiple regression panel data analysis of sixteen listed firms. The dependent variable is disclosure score and the explanatory variables include size, status, age, total capital employed, net profit on capital employed and net profit on sales. The study identifies that company size, total capital employed and profitability are significantly influencing the level of disclosure but age and status of the company have no significant association. This study includes many company features for explaining financial disclosures but the nonfinancial disclosures in the annual reports are omitted in this study.

Das (2017) finds that level of voluntary disclosure in the annual reports of listed Bangladeshi companies is poor but it is increasing over the study period. The study reveals that voluntary disclosure has a significant positive relation with firm's liquidity, firm size, percentage of independent directors and board structure while it has a significant negative association with company age, market categories and number of independent directors. However, this research is limited to only voluntary types of disclosures. The status of mandatory disclosures is not investigated in this study.

2.2.5.2 External Factors and Disclosure Practice in Manufacturing Companies of Bangladesh

A few studies on listed manufacturing companies in Bangladesh are available about the external factors and their impact on disclosures. Most of these studies did that in a qualitative discussion based on survey or interview. Quantitative studies defining influence of the external factors are uncommon. Also the relative contribution of external factors and firm-level factors to corporate disclosure remains unsettled.

Although there are regulations regarding the annual report disclosures for listed companies, full compliance are not being practiced due to some drawbacks in the systems. Earlier studies and reports have observed that the regulatory bodies (mainly the BSEC, the RJSC) and professional bodies (especially the ICAB) in Bangladesh lack efficient manpower and advanced technology to enforce the existing rules (Das, 2015; Nurunnabi, 2012; Muttakin, 2012; Islam & Dellaportas, 2011; World Bank, 2015). One major factor for noncompliance is that the adoption process of the IFRSs (and the IASs) in our country does not follow a democratic process, the ICAB just implement the wholesale adoption of the internal standards, which are not, in many cases, suitable for our socio-economic condition (Nurunnabi, 2012; Das, 2015). Another phenomenon of reporting environment in Bangladesh is that stakeholders (general shareholder, institutional investors and the financial media etc.) hold weak pressure on the companies. Most of the shareholders don't of have sufficient knowledge about the activities of companies, so the accountability of the management remain low. There is a lack of knowledge among the general shareholders about their rights and duties so that they cannot take part in the policy making decisions of a company.

The paper of Belal and Owen (2007) examines the views of corporate managers on the existing situation and future of social reporting in Bangladesh. The researchers conduct interviews with senior managers of twenty three companies from domestic private, multinational and public sectors. The study reveals that the reporting practice is mainly motivated by the demand of strong stakeholders, perceived pressure from foreign buyers and parent company's directions. The researchers claim that local environmental attributes should be considered before imposing the international standards for disclosures in our country. This study does not consider the mandatory reporting; rather only consider the social reporting. But it is important to investigate how local socio-economical factors affect companies' practice of compliance reporting.

Islam and Deegan (2008) interview some senior officials from BGMEA to understand their perceptions regarding the pressure on their social and environmental performance and disclosure. Through content analysis of annual reports the researchers make an attempt to identify related perceived pressure on the trend of disclosure. The results show that readymade garment industry in Bangladesh are facing pressure from the multinational buyers, media and NGOs about their social and environmental policies and disclosure practices. The researchers opine that exploring managers' perception about the external pressure is very important to understand the disclosure practices. The scope of this study is limited only to a specific type industry and disclosure. Such studies should be conducted for the other type of industries and mandatory disclosures also.

Bhattacharjee and Islam (2009) have conducted a study about the quality of accounting practices in Bangladesh. The researchers collected data mainly from literature and some secondary sources. Besides, the opinions of some qualified accountants have been collected. The researchers conclude that accounting quality of a firm depends on the overall institutional setting of the country. So in order to improve the quality of reporting environment in Bangladesh the overall institutional settings should be developed. Although the influence of the institutional factors on the quality of disclosures is given focus in this study, there is no attempt to empirically test the relationship.

The study of Islam and Dellaportas (2011) observe that due to some cultural factors such as high power discrepancies in the society and family concentration in the companies' ownership structure social and environmental disclosure is being neglected for years. They collected accountants' (members of ICAB) perceptions on corporate social and environmental accounting practices in the context of Bangladesh. Their study has explored a positive outlook of the accountants towards the social and environmental disclosure. The researchers opine that as the government and the ICAB are not playing a proactive role for disclosure it is necessary for the international bodies to come up for improving the scenario. This study does not consider the mandatory part of disclosure. Moreover the researchers don't attempt to empirically test their claims about the influence of the abovementioned factors on the disclosure.

Belal and Cooper (2011) attempt to explore the causes why companies are reluctant to disclose their social activity related information (including child labor, equal opportunities, and poverty alleviation issues) in annual reports. For this purpose the researchers have interviewed twenty three senior corporate managers. The study reveals that lack of legal obligations, lack of resources, poor performance, profit imperative, lack of awareness, and fear of bad publicity are some main causes behind the scenario. However, the discussion of this study is qualitative in nature and causes for compliance to the mandatory information are not explored here.

Muttakin (2012) comments that in Bangladesh most of the firms have concentrated & family ownership. As a result internal and external governance mechanisms can't be implemented successfully. He also opines that the legal and regulatory frameworks and judicial structures are comparatively weak in Bangladesh. So that the activities of the companies are not monitored well and this threatens the minority investors' right.

Alam and Chowdhury (2012) conduct a study to detect the motives behind poor reporting by the listed manufacturing companies. Stratified Random Sampling method has been used for collecting qualitative primary data. The researchers applied the Kendall Coefficient of Concordance (*W)* and chi square test (*c2*) in order to determine the relationship between the variables. Result shows that the most important reason for poor disclosure in Bangladesh is the weak legal system. The next two important factors are poor corporate governance and weak monitoring authority. However, the researcher does not attempt to testify the association of the identified causes with disclosures.

Hossain, Niaz, and Moudud-Ul-Haq (2015) arrange a survey among the company accountants and auditors about major influencing factors that cause reluctance among listed companies to disclose in their annual reports about compliance with the BASs and BFRSs. It is found that the accountants believe that the most important factors are observance to business risk, possibility of losing prospective customers and inappropriateness of the standards. On the other hand the auditors identify some interesting factors of nondisclosure including the attitude of management to hide information, lack of expertise in measuring and reporting, possibility of losing the potential investors, and adherence of business risk etc. The researchers do not extended the study by statistically proving the relation between those factors with the disclosure practice. Also this study does not discuss on the reasons of non-disclosure of social and environmental information.

The study of Nurunnabi (2015) explores how the political forces influence the reporting environment in Bangladesh. The researcher conducts a semi-structured interview with respondents from different groups including policy makers; accounts preparers and professionals; users; and academics/researchers. He opines that implementation of IFRSs in developing countries are influenced by local institutions. He also comments that politico-institutional factors dominate over the accounting regulatory frameworks in Bangladesh which hampers the implementation of IFRSs. The researcher argues that there is a tendency among the professional bodies and the government agencies to blame each other in this regard. He identifies some other factors that are inhibiting IFRSs implementation including deficiencies in the training opportunities of accounting profession; scarcity of competent accountants; lack of awareness in IFRSs by managers of some companies; culture of secrecy, corruption; and higher costs of IFRSs compliance with lower benefits for small companies. This study attempts to visualize the picture of the IFRS implementation process in Bangladesh from a practical viewpoint.

Aminuzzaman, Bakar, and Islam (2015) review the previous studies on the mandatory disclosure by manufacturing companies in Bangladesh. They observe that compliance to the regulated information items is not very good over the years. Government and professional bodies are alleged to adopt the IASs for the pressure from donor agencies and the faulty adoption process leads to a low compliance. However, this study is limited to the review of existing literature, no quantitative investigation has been attempted to test the observation.

The trend of mandatory disclosure practices in Bangladesh has been observed by Sufian (2016). He observes from the prior studies that the extent of mandatory disclosure of manufacturing sector is poor (59.28% on an average) and the listed companies do not provide all mandatory information in their annual reports. The researcher identifies that lack of awareness among shareholders, weakness in regulatory framework and absence of strong pressure groups are some major causes behind this picture. However, this study does not discuss about the voluntary part of disclosures and its determinants.

In a qualitative approach, the study of Hossain, Alam, Hecimovic, Hossain, and Lema (2016) analyze the barriers to CSER practices in Bangladesh. The researchers undertake a semi-structured interview with twenty six persons representing the NGOs, the media, regulatory authorities, government departments, shareholders, trade union leaders and customers. The researchers find that corruption and politics, lack of coordination, lack of government initiatives and insufficient execution of laws, lack of consciousness amongst different stakeholder groups are perceived to make barriers in CSER practices in Bangladesh. The scope of this study is limited to the discussion of interview; the researchers do not attempt to empirically test the findings.

Akhter and Dey (2017) conduct a study about the sustainability reporting practices in Bangladesh. The study finds that this particular type of disclosure practice is mainly voluntary in nature and is still in a very primary stage. The researchers opine that lack of mandatory regulation may be the cause of such limited disclosures. They explore that companies mainly disclose about their society and community development related activities and less information is disclosed about human rights, product responsibility and environmental issues. Finally the researchers consent that further research is necessary to identify perceptions of managers and stakeholder groups regarding the potential implementation and disclosure of the sustainability issues.

2.2.6 Gaps in the Literature

Annual reports of listed companies include both mandatory and voluntary types of information. Most of the previous disclosure related studies in Bangladesh have been confined to either mandatory or voluntary part of reporting. Very few studies consider both types of disclosures at the same time. Thus the present study extends the existing literature by discussing on the extent and determinants of the two types of disclosures. The first two research questions of this study aim to seek the level of both types of disclosures published in annual reports of the listed manufacturing companies in Bangladesh.

Several studies can be found in other countries' context identifying relation between the two types of disclosures. The direction of this relation varies among the studies. Some of them find companies that disclose more mandatory items also provide more voluntary information whereas some studies fail to indicate any type of association between them. In order to assure shareholders about the availability of fair and relevant information from the annual report; this type of research is necessary, especially where general investors lack proper knowledge and their interest is not protected by law. Also the independence of the board from the management can be understood from the relation between both types of disclosures.In Bangladesh perspective; there is a lack of research on this topic. The current study attempts to remove this gap in literature. Hence research question three intends to explore the relation between mandatory and voluntary disclosures.

Previous studies claim that disclosures in the annual reports of the listed manufacturing companies in Bangladesh are not satisfactory. Research is needed to investigate the real situation why companies are not providing detailed information. It is understood from the literature on other countries that disclosure practice of a company does not grow on vacuum rather it is influenced by some internal attributes and external factors (Haniffa & Cooke, 2002).Literature review suggests that most of the relevant studies in Bangladesh are limited to company's internal attributes like size, profitability, ownership structure etc. Very few studies attempted to explore the affect of external factors like regulatory authorities, stakeholders, media etc. on disclosure practice. By using qualitative methods like interview, some studies made an attempt to discuss how disclosure practice is influenced by these factors. But quantifying the influence of external factors is rare in our literature. Studies are hard to found on examining the simultaneous impact of both internal and external factors on the level of disclosures of listed manufacturing companies in Bangladesh. Also there is a general lack of research seeking the perception of managers of companies about how external factors influence their disclosure attitude. Investigation are required in this regard because they are the persons involved in preparing the annual reports and regulators can improve the reporting environment by understanding their attitude. The present study aims to fill this void in the literature by answering research question four. This study is an extension to existing literature by examining how the disclosure practice of listed manufacturing companies in Bangladesh are influenced by external factors along with the internal ones. This study proposes a contingency theory approach to develop a framework for analyzing the relationship between level of disclosure and the influencing factors. Gernon and Wallace argue that more empirical research on this theory are needed in order to conceptualize the causes of variations in accounting practices among countries (as cited in Elsayed, 2008). Application of this theory is limited in literature of accounting disclosure in the context of Bangladesh. This study has an opportunity to contribute in the literature in this regard.

2.3 Summary

In the first part of this chapter a brief description of the capital market and the reporting environment in Bangladesh has been presented. Dhaka Stock Exchange (DSE) and Chittagong Stock exchange (CSE) are the two capital markets which are operated under the supervision of the Bangladesh Securities and Exchange Commission (BSEC). The Institute of Chartered Accountants of Bangladesh (ICAB) monitors the reporting practices of listed companies through supervising the activities of auditors. Listed companies have to follow some regulations while publishing their annual reports. Besides the mandatory ones, listed companies also provide some voluntary information especially about their social and environment related activities. Reporting practices in Bangladesh suffer from lack of updated systems and weak enforcement. The stock markets have faced devastating turbulences several times during the past decades leaving many of the investors ruined to their last hope. After those incidents Bangladesh government has extended a vast net of statutory rules and procedure. Consequently the Financial Reporting Council (FRC) and the Corporate Governance Guidelines and Codes were established in order to make reporting environment more regulated. But actions taken by the regulatory bodies may not be enough for punishing all the cases of noncompliance (Das, 2015). So it is necessary for all the relevant authorities to play their respective roles in enforcing the provisions for better reporting environment.

In the second part of this chapter relevant previous studies have been reviewed. It is generally agreed that disclosure behavior is a result of companies' response to the internal and external influencing factors. It has been realized that overall disclosure status of listed manufacturing companies in Bangladesh has not been satisfactory. A majority of disclosure studies on Bangladesh are confined to the relation of companies' internal factors with disclosure. Few researchers discuss how disclosure practice of listed companies in Bangladesh reacts to the influence of external factors. But those studies are conducted mainly in a qualitative way. Studies are absent in Bangladesh context to recognize how a company's strategies for overall disclosures depend on the simultaneous impact of both internal and external factors. The main aim of the present research is to fill this gap of literature by examining both types of factors in order to identify the real causes of inadequate disclosure practice among companies.

Table 2.2 lists some of the previous studies on disclosures and the determinants of disclosures.

Table 2.2: Comparative List of Previous Disclosure Literature

Researcher/s & year	Country studied	Disclosure Type	Study Type	Statistical tools used	Factors Included
Mirshekary, (1999)	Iran	Overall	Questionnaire survey and content analysis	Unweighted disclosure score, regression model	Audit firm, liquidity
Haniffa andCooke (2002)	Malaysia	Voluntary	Content analysis	Disclosure Index, Regression	Family ownership, insider director. Race of directors, foreign investor, industry type profitability
Jaggi and Low (2000)	Different countries	Financial			Legal system
Chau and Gray (2002)	Hong Kong and Singapore	voluntary		Multiple regression analysis	Ownership structure
Al-Razeen and Karbhari (2004)	Saudi Arab	Compulsory and voluntary disclosures.	Content Analysis	Disclosure Index, correlation analysis	Mandatory and voluntary items
Bushman, Pitroski and Smith (2004)	Different countries	Financial (mandatory and voluntary)	Content analysis	Factor analysis	Legal/judicial system and political economy
Akhtaruddin (2005)	Bangladesh	Mandatory	Content analysis	Unweighted disclosure score, OLS	Size, age, industry type, profitability
Owusu-Ansah (2005)	New Zealand	Mandatory	Content analysis	Disclosure index, regression	company age, size, liquidity, profitability, existence of audit committee, and auditor-type
Barako, Hancock and Izan (2006)	Kenya	Voluntary	Content analysis	Disclosure index, OLS	Governance attributes, ownership structure
Hossain (2006)	Bangladesh	Mandatory (IASs)	Content analysis	Disclosure index, OLS	Size, Debt-equity Ratio, Profitability,Status of a Subsidiary of a Multinational Company, International Link of Audit Firm,Industry Type
Hassan, Giorgioni and Romilly (2006)	Egypt	Mandatory and voluntary	Content analysis	Disclosure index, regression	Size, legal for, profitability, gearing, stock activity etc

Das (2015)	Bangladesh	Mandatory and voluntary	Content analysis	Disclosure index, regression	size, multinational parent, and industry type
Overfelt, Deloof and Vandtraelen (2009)	Belgium	Voluntary	Content analysis	Disclosure indices, multiple regression	Costsof asymmetric information; influences of banks; debt financing, dividend payments ,corporate performance, industry.
Belal and Owen (2007)	Bangladesh	Voluntary	Interview	Qualitative	Stakeholders' pressure, Buyers' demand
Hossain and Hammami (2009)	Qatar	voluntary	Content analysis	Unweighted disclosure index, regression analysis	age, size, complexity, and assets-in-place
Nurunnabi (2012)	Bangladesh	Mandatory-IASs/IFRSs	Interview	Descriptive	Politics and corruption, Local accounting regulations,
Belal and Cooper (2011)	Bangladesh	Voluntary	Interview	Qualitative	Lack of resource, Profit imperative, legal requirements, awareness, performance Fear of bad publicity
Omar and Simon(2011)	Jordan	Mandatory and voluntary	Content analysis	Disclosure index and regression analysis	Firm size, profitability, number of shareholders, listing status, industry type, audit firm size and company age
Gao and Kling (2012)	China	Mandatory disclosure	Content analysis	Disclosure index, Ordered logit models	Size of the firm, leverage, size of auditors, ownership structure, profitability, multinationality
Alam and Chowdhury (2012)	Bangladesh	Overall	Questionnaire survey	Kendal coefficientchi square test	Legal system, poor monitoring of RJSC, SEC
Morris, Susilowati and Gray(2012)	Different countries (mainly developing)			Disclosure index, multiple regression	Country legal system, National culture, size, ownership structure, profitability,

					leverage etc
Khan, Chand and Patel (2013)	Fiji	Voluntary		Descriptive statistics	Ownership Structure
Hasan and Hossain (2013)	Bangladesh	Mandatory and voluntary disclosures			Profitability, multilisting, earning per share, internationality and international link of the audit firm, asset size, number of shareholders, year of listing, ownership structure, market category, audit fee, and leverage
Ali and Rizwan (2013)	Bangladesh and Pakistan	CSED(voluntary)		Qualitative	NGOs, Govt., investors, employee, media, industry and competitor practices, international customers,
Mardini, Tahat and Power (2013)	Jordan	Overall (Mandatory voluntary)		Disclosure Index, Regression	Company size, the audit firm engaged and company profitability
Lan, Wang and Zhang (2013)	China	Voluntary		Disclosure index, multivariate analysis	Agency theory: Leverage, Assets in Place Signaling theory: Liquidity, ROE, Auditors' type Proprietary Theory: Size
Bhattacharyya (2014)	Australia	Voluntary	Content analysis	Disclosure index, regression analysis	Firm size, profitability
Hossain, Niaz and Moudud-Ul-Haq (2015)	Bangladesh	Mandatory (IASs)	Questionnaire survey	Descriptive	Business risk, Weak regulatory bindings, Intention of management, expertise of accountants
Das, Dixon and Michael (2015)	Bangladesh	Mandatory	Content analysis	Multiple regression	Size, profitability, and multinational parents
Uddin and Safiuddin (2015)	Bangladesh	Voluntary	Content analysis	Disclosure index, Multiple regression	Size (measured by total assets, gross revenue and number of

					employees), profitability (measured by EPS)
Mateescu (2015)	Estonia, Poland, Hungary, Romania	Overall	Content analysis	Disclosure Index	Legal environment of the country, foreign ownership, institutional ownership, size, leverage
Muttakin, Khan and Subramaniam (2015)	Bangladesh	CSR	Content analysis	Disclosure index, regression	Size, Profitability, Woman director, Foreign director. Control: age, leverage, CEO duality etc
Sufian (2016)	Bangladesh	Mandatory	Content analysis	Disclosure index, Multiple regression	Awareness of investors, laws and acts, pressure groups
Das (2017)	Bangladesh	Voluntary	Content analysis	Disclosure index, Multiple regression	Firm size, firm's liquidity, percentage of independent directors and board structure
Akhter and Dey (2017)	Bangladesh	Voluntary sustainability reporting	Content analysis	Disclosure index, Descriptive analysis	Average disclosure rate is low due to lack of regulation.

CHAPTER THREE

THEORETICAL FRAMEWORK AND HYPOTHESES

3.0 Introduction

The present chapter provides a brief description about some popular disclosure theories followed by a discussion on the hypotheses and conceptual framework of the study. Section 3.1 introduces the premises of theoretical framework; section 3.2 briefly narrates different popular theories of disclosure; section 3.3 provides the justification of using contingency theory for this research section; 3.4 presents the hypotheses of this research; section 3.5summarizes the chapter.

3.1 Premises of Theoretical Framework

Previous researchers have investigated the motivating factors of accounting disclosure using several theoretical perspectives. After having a review on the extant literature of disclosure, it can be understood that disclosure and its determinants cannot be explained by only one theory (Verrecchia, 2001). Each theory provides a slightly different and useful insight into disclosure practices.

From the literature two major theoretical groups can broadly be identified within accounting disclosure research: positivist and normative. Positive accounting research seeks to discuss and forecast actual accounting practices. This contrast with normative accounting, that aims to develop and recommend "optimal" accounting standards. Accounting research prior to the mid-1960s was mainly normative, seeking to suggest “what should be” or “what ought to be” in relation to accounting treatment and financial reporting. The main criticism to normative approach is that this approach use inadequate observations before creating any theory; as a result the theory may differ from practical situation (Deegan & Unerman, as cited in Mokhtar, 2010). To overcome this drawback the researchers develop a positive accounting approach (Omran & El-Galfy, 2014). Positive theories try to explain ‘what is’ rather than recommending ‘what should be’. The explanation provides causes for practical accounting practices while prediction focuses on forecasting unseen accounting practices (Deegan & Unerman; Wolk et al., as cited in Mokhtar, 2010). The normative group offers accountability theory and critical theory. However, positivists’ theories have gained popularity among the accounting researchers for empirical studies on corporate disclosure phenomena. The most common theories that have gained popularity among the accounting researchers for empirical studies on corporate disclosure phenomena are: agency theory, legitimacy theory, stakeholder theory and institutional theory. Another theory that has been used very recently by researchers for financial reporting is contingency theory, which is mainly used in management accounting or organizational behavior literature. It can be understood that in spite of differences in theories regarding assumptions and perspectives there are some common phenomenon among the theories. Nevertheless, there is an overlap among the concepts of these popular theories. However, it must be realized that applying a theory doesn't indicate that it is superior over other theories rather it is appropriate for that particular research. Based on the review of the literature, it can be observed that agency theory has been popularly used in the financial accounting related studies for discussing relation of disclosures with company attributes; whereas legitimacy theory, stakeholders theory and institutional theory have been used in the premise of social and environmental accounting (Islam, 2009). Generally research methods used for agency theory are secondary data based and for the other three theories content analysis, case study, survey, interview methods have been applied (Islam, 2009). On the other hand researchers us contingency theory for explaining contingent factors on corporate reporting by using mainly survey and interview methods.

3.2 Popular Theories of Disclosure

A detailed discussion of some popular theories of disclosures is given below to have a sophisticated knowledge about disclosure behavior of companies.

3.2.1 Agency Theory:

Agency theory explains that managers would provide detailed information to the shareholders in order to minimize conflict with and gain confidence of the shareholders. Basically agency approach was introduced in the economics literature during the year nineteen sixty and nineteen seventy. The aim was to select the best option for risk-sharing among different persons (Birjandi, Hakemi, & Sadeghi, 2015). However, gradually agency theory was being accepted in the management discipline for explaining the interaction among different individuals who have different goals in the organization (Eisenhardt, 1989).

The use of agency theory in accounting literature focuses on the need of information. Necessity of accounting information arises primarily from the concept of separating management from ownership in large originations. Since then shareholders (principal) have delegated the responsibility of operating the firm to the managers as their agents. The problem arises when the two parties have diverse interests (increased dividend for shareholders or increased bonus for managers) and asymmetric information (the agent get easy access to inside information), such that the shareholders' cannot directly guarantee that the agent is always performing in their (principal's) best concern. Agency theory discusses about this agency problem that surfaces between these two parties and emphasizes on the reduction of this problem. This theory suggests that managers should disclose detailed information in order to gain the confidence of the shareholders. Eisenhardt (1989) observed that from its roots in information economics, agency theory can be explained in two approaches; positivist and principal-agent. Both streams discuss about the relation between the principal and the agent. But positivist approach especially focuses on the contract between owners and managers of companies; whereas focus of principal-agent approach is more general concerning the relation between to employer-employee, lawyer-client, buyer-supplier, and other agency relationships. Jensen and Meckling are said to be pioneered the formal development of 'Positive' Agency theory (Nurunnabi, 2015). The theory aims to study the conflicting relation between managers with the owners of organization; and also between stockholders and debt holders. Owners cannot supervise the work of managers directly and may lack some important information. Debt holders also don't have the direct intervention to the activities of managers and shareholders (Nurunnabi, 2015). Managers operate inside the firms and get more access to the information. But they may not provide detailed information to the external shareholders and debt holders if it is not in favor of their (managers) interest. This may create an informational asymmetry; as a result shareholders' and debt holders' decisions become biased, which may ultimately hamper the optimal allocation of resources.

Therefore they have to be ar a number of costs to monitor and tie the respective other party within the firm and these costs are called the agency costs (Nurunnabi, 2015).

In order to reduce the agency costs managers can provide more information in the financial statements so that owners and debt holders may get necessary information (Umoren, 2008). Agency theorists believe that managers need some incentives (bonus, stock options etc.) to provide detailed information to the shareholders. They would compare the costs with the incentives they are getting (i.e. agency benefits) from the company. Many previous researchers used agency theory in identifying the determinants of disclosure such as; for mandatory disclosures (Akhtaruddin, 2005);for aggregate disclosures (Omar & Simon, 2011);for voluntary disclosure (Barako et al., 2006; Birjandi et al., 2015).

3.2.2 Legitimacy Theory:

Legitimacy theory explains that a company should disclose accounting information in such a manner that it can comply with the society's norms, beliefs, values and definitions. Legitimacy theory provides a view that as a part of the society an organization has to interact with the social demand. In order to survive, organizations need to operate their activities according to the community expectations and market forces (Islam, 2009). Dowling and Pfeffer (as cited in Elsayed, 2008) have explained organizational legitimacy as how an organization adapts the social norms and values in its activities. They state that if there is any difference between the organizational activities and the social value systems, organizational legitimacy will be hampered. Deegan (as cited in Hang, 2016) suggests that organizations should adjust with community expectations or else they will face punishment. In order to gain the legitimacy the organizations need to improve their culture and to uphold it in the outer environment (Burlea & Popa, 2013).

Researchers generally use legitimacy theory for explaining the motivation of organizations to provide social and environmental disclosure (Islam, 2009; Burlea&Popa, 2013). Mousa and Hassan (2015) gets an indication from the extant research environmental disclosures are increasing since the early 1980s probably due to the popularity of the concept of legitimacy theory.

3.2.3 Stakeholder Theory:

Stakeholder theory suggests that an organization will supply accounting information in reaction to the demand of dominant stakeholders. This theory explains the relation between an organization with its varied group of stakeholders including employees, suppliers, creditors, local communities etc. It addresses the morals and values in managing an organization that should be in congruence with the expectations of its stakeholders. As per the stakeholder theory, organizations should manage the interests, needs and opinions of the stakeholders (Friedman & Miles, 2006). Though the composition of stakeholders may differ depending on company's industry and business model, they are equally important for the company. Managers should try to guide the varied interests of different stakeholders into the same direction (Freeman, 2017).So the managers have to play two folds of responsibility - one for managing the company's activities to ensure the right of stakeholders' and another for maintaining the interest of the stockholders for whom managers are acting as agents (Friedman & Miles, 2006). Stakeholder theory is different from legitimacy theory as it distinguishes social issues from stakeholder issues. Stakeholder issues are related with one or more specific groups which may not have same importance for the whole society. It is necessary to make a distinction between these two issues (Clarkson, as cited in Elijido-Ten, 2004). Stakeholder theory states that organizations should manage their relationship with their individual stakeholders not with the society as a whole.

Kent & Chan (as cited in Islam, 2009) opine that in order to manage the relationship with external environment a firm should consider the interest of its diverse interest groups. As the firm has scarce resources it cannot response to each group with equal importance, rather it should response mainly to the demand of the most powerful groups. Within the social and environmental accounting literature, it is suggested that companies can manage relationships with powerful stakeholders through social performance and disclosure. It is expected that organizations have a tendency to provide more disclosure according to the demand of the most powerful stakeholder groups (Islam, 2009). Many researchers use legitimacy and/or stakeholder theory in order to explain social and environmental disclosure (Islam, 2009).

3.2.4 Institutional Theory:

According to the institutional theory, companies provide accounting information as per the direction and expectations of the surrounding institutions. This theory explains how the whole system of the organizations are guided by their institutional environment. Different institutions (including governments, regulators, customers, competitors, community and environmental interest groups, and industry associations etc.) can create diversified pressure on the firm to adjust their activities. A fundamental assumption of institutional theory is that companies respond to the institutional environment for preserving their legitimacy (Islam & Dellaportas, 2011). Islam (2009) observes that many researchers have contributed to the application of this theory. He mentions that DiMaggio & Powell’s version of institutional theory has been termed neo-institutional theory. This theory has become very popular among the other researchers. According to this theory organizations in the similar environments share some general structural features and they have to follow the same instructions from the institutions prevailing in the environment. When an organization faces excessive pressure from one or more institutions to adopt a specific practice it tries to adopt that as soon as possible to maintain legitimacy. Managers attempt to shape the organizational behavior according to the institutional pressure in order to implement practices of other similar entities (Bebbington, et al., 2009).

According to institutional theory organizations in a similar setting face three institutional mechanisms such as; coercive, mimetic and normative isomorphism (Dimaggio & Powel, as cited in Delmas & Toffel, 2004).Coercive isomorphism results from the social culture and also from the demands created by institutions upon which organizations are dependent. Normative isomorphism comes from the professional bodies that make pressure on the organizations to follow some standards and common practices. Mimetic isomorphism refers to the companies’ intensity to mimic the practices of other similar type organizations (DiMaggio & Walter as cited in Ali & Rizwan, 2013). For explaining the social and environmental reporting practices in different countries many researchers used legitimacy theory and stakeholder theory (Islam & Deegan, 2008). Beside these two theories, institutional theory is also becoming popular in the literature. But Ali and Rizwan (2013) claim that institutional theory is more sophisticated and broader than the other two theories. They argue that according to legitimacy theory, a company has a contract with the whole society to follow the norms and demands as prescribed by the society. But this theory fails to include the individual expectation of different groups(such as: government, customers, media, employees, investors, competitors, etc.) within the society. On the other hand, stakeholder theory requires that while disclosing information firms should give equal importance to the demand of each stakeholder group.. But it is not possible for the organizations to fulfill the demands of all groups with equal importance. The managerial branch of stakeholder theory state that firms usually remain responsive to the expectations of the most powerful group of stakeholders. However, in this theory the role of other important institutions such as: regulatory bodies, culture, professional bodies, and educational institutions etc. are neglected. But institutional theory considers the influence of all stakeholders and other external institutions on the disclosure practices (Ali & Rizwan, 2013). Institutional theory is considered as the most dependable and suitable approach for examining the events of the business environment (Veciana, as cited in Barakat, et al., 2015). Institutional theory has been applied by researchers for compliance disclosure (Nurunnabi, 2015) as well as for social and environmental disclosures (Islam, 2009; Ali & Riaz, 2013). These studies indicate that culture and institutional factors, nation’s social and economic development, regulatory system, customers, professional bodies etc. are potential important determinants of the level and type of corporate disclosure.

3.2.5 Contingency Theory

The contingency theory emphasizes on the behavior of organizations in response to contingencies or restrictions, such as; size, environmental uncertainties, technology and environmental pressures. It attempts to recognize the relationship between an organization’s management capacity with its internal and external characteristics (Nogueira & Jorge, 2016). This theory was initially developed to explaining practical differences in the structure of organizations (Chapman, as cited in Elsayed. 2008). The contingency approach suggests that there is no particular best way to manage the operations of organizations. Managers’ activities depend entirely to the circumstances and environment. They formulate organizational strategies on the basis of their knowledge and experience about the prevailing situations. Regarding accounting and financial reporting systems, the contingency theory states that no universally appropriate accounting system can be uniformly useful for all organizations (Otley, as cited in Nogueiraa & Jorge, 2016). It depends on the specific circumstances of the particular organization, including both the internal context and the external environmental factors of an organization, such as; size of the organization, strategies of the organization, technology used, quality of accountants, regulatory system of the country, socio-economic environments in the national and international premise. Managers should take decision about accounting and reporting system of their organizations after considering all the factors. Use of contingency theory in accounting literature was not seen until mid 1970s, although contingency models in organizational theory were introduced in the early period of 1960 (Otley, as cited in Alboali, Hamid, & Moosavi, 2013).

Alrawi and Thomas (2007) mentioned the studies made by Woodward in 1965 and Lawrence and Lorsch in 1967 in the primary stage of the development of financial accounting. In those studies the structure of an organization were analyzed by their relationship with the organizational context including its environment, size, technology & personnel available.

In management accounting literature use of contingency theory was followed quite quickly after its inception in the management and organizational theory literature (Gerhardy, 2003). But in financial accounting premise use of this theory is limited rather application of this theory is comparatively a recent development. Elsayed (2008) identifies Schweikart as an early writer who clearly recognize application of contingency theory in international accounting research. Schweikart (as cited in Elasyed (2008) suggests some variables in the national premise, such as; educational, economic, political-legal, and social, to be contingent factors for accounting information needs. Thomas (1986) is another pioneer researcher who applied this theory to explain the association of corporate financial reporting practice with the particular circumstantial variables. He opines that these variables or contingent factors may exist in the internal attributes and in the external environment of the organization. In another study Thomas (1991) conceptualizes that contingent variables fall into four classes including: (a) societal variables (the legal, economic, educational and political etc. system of a country); (b) the environment of the enterprise (systematic risk, uncertainty, competition in the business); (c) organizational attributes (resources, size, technology etc.); and (d) user characteristics (financial sophistication, adaptiveness to change, analyzing capacity, consciousness, proactively). He comments that there is considerable amount of empirical evidences that variations in these variables influence the reporting practices of an organization.

Lawrence and Lorsch (as cited in Elsayed & Hoque, 2010) state that financial reporting practice of an entity is a result of the internal decision procedure which depends upon the external pressures. Reporting methods and disclosure levels differ among organizations due to the differences in their environment.

However, contingent theory has been criticized as there is no specific definition of contingent variables in the literature. Schweikart (as cited in Elsayed, 2008) recognizes that it is not possible to hold institutions and information constant across countries while applying this theory. In this context Elsayed (2008) mentions the study of Gernon and Wallace as requiring more experimental research based on this theory in order to prove that accounting practice is an outcome of its environment.

In Bangladesh context, use of contingency theory in disclosure literature is rare. The current study attempts to study the motivations of disclosure in Bangladesh under the lens of this theory.

Table 3.1 provides a summary of the discussion on disclosure related theories.

Table 3.1: Summary of the Discussion on Theories

Theory	Area Covered	Factors Mainly Considered
Agency Theory	Mandatory disclosure, voluntary disclosure	Internal Factors, company attributes
Stakeholder Theory	Voluntary disclosure	External Factors; mainly stakeholders' demand
Legitimacy Theory	Voluntary disclosure	External Factors;general social issues
Institutional Theory	Mandatory disclosure, voluntary disclosure	External Factors; mainly institutional pressure
Contingency Theory	Management accounting, Financial Reporting, Auditing, Budgeting etc	Internal and External Factors ; including company's feature, strategy, external environment etc.

Note. Literature review

3.2.6 Dye's Theory of Association between Mandatory and Voluntary Disclosure

Both mandatory and voluntary disclosures are important and constantly interact with each other (Popova, Georgakopoulos, Sotiropoulos, & Vasileiou, 2013).Management of an organization often faces difficulties to determine the extent of information to be disclosed. In this context, Dye (1986) argued that in order to maximize the value, managers of organizations would like to disclose full information since publishing only mandatory information may have negative impact on the share price. So it is expected that companies that provide more information in the annual reports for mandatory purpose also disclose increased amount of voluntary information. One aspect of the present research is to examine the relationship between mandatory disclosure and voluntary disclosure of companies under this study. This part of the study is explained on the basis of Dye’s Theory. Dye (as cited in Popova et al., 2013) examines the influence of mandatory disclosure on voluntary disclosure and explores that the relation depends on whether these two types of disclosures are substitutes or complements. If their relation is as substitutes, companies tend to show less voluntary information when mandatory disclosure requirements increase and vice versa.Many previous researchers have used this theory to discuss the relation between mandatory and voluntary disclosures (Al-Razeen & Karbhari, 2004; Alberti-Alhtaybat, Hutaibat, & Al-Htaybat,2012; Al-Htaybat, 2014;Popova et al., 2013).

3.3Justification of Using Contingency Theory for this Research

Reporting practices are influenced by a number of factors related to the company and its country of operation. Many of the previous studies on determinants of disclosure used positive accounting theories (such as; agency theory) for investigating the association between firms’ features with their choice of accounting methods (Thomas, 1986). Many researchers come across that now-a-days companies are focusing on the need of varieties of stakeholders instead of only maximizing the wealth of shareholders. Managers have to operate in line with the social norms, values, regulations and other factors.Thus legitimacy theory, stakeholder theory, institutional theory may provide an alternative interpretation of the empirical findings of research based on agency theory. Another theory that has been used very recently by researchers for financial reporting is contingency theory. The strength of the contingency theory rests in the broad economic, political and social lens, which go beyond the narrower economic concerns of other theories. However, Thomas (1986) observes several limitations of using positive accounting theory in the corporate reporting literature including difference in findings of different studies using the same variables. Thomas (1986) argues that contingency theory assumes the similar relation but emphasis is given on the choice of management relating to the environment and constraints of the organization rather than the relative income effects of disclosure. Gernon and Wallace (as cited in Elsayed, 2008) stated that researchers should come forward to test empirically the concept of contingency theory that accounting depends on its environment. Many researchers have found contingency theory useful in this regard (e.g., Elsayed & Hoque, 2010; Azam, 2014) and established the concept that the environment of an entity affects its reporting practices.

Most of the studies on the determinants of disclosures in the context of listed manufacturing companies in Bangladesh also have used agency theory (Akhtaruddin, 2005 for mandatory; Aminuzzaman, et al., 2015 for mandatory disclosure; Barako, et al., 2006 for voluntary).Some studies have admitted that several socio-cultural and institutional factors affect the annual report disclosure under the lens of stakeholder theory, legitimacy theory and institutional theory on compliance disclosure (Nurunnabi, 2015) and on voluntary disclosure (Belal & Roberts, 2010;Islam & Deegan, 2008). There is lack of studies seeking the views of management of the listed companies about the perceived pressures from the external environmental factors in publishing the annual reports (Islam, 2009). Researches using contingency theory tend to collect managers' perception about the relation between disclosure and various influencing factors (Alrawi & Thomas, 2007; Elsayed & Hoque, 2010; Azam, 2014).The current study attempts to examine the factors (both company attributes and external environmental factors) with potential to explain annual report disclosures of listed manufacturing companies in Bangladesh. Contingency theory is seemed to be very relevant to the purpose of this study as it conceptualizes that management's choice of reporting practices depends on corporate attributes and external environmental factors.

Apart from this the present study also uses Dye's theory in order to ascertain the association between mandatory disclosures and voluntary disclosures.

3.4 Hypotheses Development

Previous literature evidenced that corporate disclosure practice is a result of the company attributes and external factors (Archambault & Archambault, 2003; Haniffa & Cooke, 2002). It is necessary to study these factors for thorough understanding of the disclosure practice in different environment. Based on the literature review we can classify the factors affecting disclosure practice of a country into two groups (in Figure 3.1). One group includes the company attributes that represent size, age, profitability, ownership structure, quality of accountants, international link of external auditors, leverage etc. The other group represents the external environment of a company. This includes the stakeholders and systems that govern the disclosure process of a country (containing political systems, economic systems, educational level, legal rules, and social and cultural variables etc). In this part we can also embrace the international factors including international accounting bodies, international economic communities, regional accounting bodies, international trade organizations, multinational or overseas parent companies, international auditing firms and other international users etc.

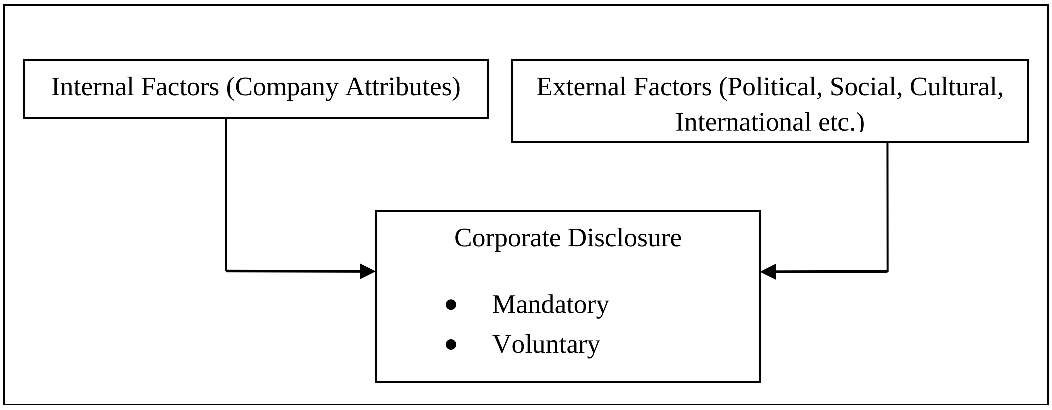


Figure 3.1: Factors Affecting Corporate Disclosure

Most of the previous studies argue that accounting disclosure by the listed companies in Bangladesh is very disappointing. These studies are concentrated on company attributes by using mostly agency theory. However, few qualitative studies have admitted that some external factors (such as; family ownership, societal power hierarchy, secret culture etc) are likely to influence the accounting and reporting practice in Bangladesh. On the other hand, the accounting practices in Bangladesh are generally assumed to adopt Western rules and procedures in order to portray traits of modernization and legitimization, irrespective of whether local circumstances necessitate them. Studies show that disclosure practices of Bangladeshi companies provide evidence that there exist pressures from IASB, donors, international buyers, media, NGOs etc (Islam & Deegan, 2008;Nurunnabi, 2015). Effective implementation of IFRS in Bangladesh has been impeded by some local barriers including weak and ineffective regulations, lack of cooperation among accountancy professional institutions, important stakeholders' nonparticipation in setting standards, and pressure from political forces. However the abovementioned studies focus on the external motivations for disclosure in Bangladesh mainly in a qualitative way and under the lens of legitimacy theory, stakeholder theory and institutional theory. There is lack of studies on how the perceived pressure of external environmental factors influence the disclosure level. This type of study in the literature considers corporate reporting as contingent to its environment. Several researchers have used contingency theory in explaining the motivations of disclosures (Alrawi & Thomas, 2007; Elsayed & Hoque, 2010; Azam, 2014 etc.) and established that the environment of an entity affects the entity's reporting practices. The present study attempts to apply the concept of contingency theory to examine the influence of both company's internal attributes and external factors (within the national boundaries) on disclosures of DSE-listed manufacturing companies. Some potential factors have been identified from previous studies and theoretical perspective. Finally on the basis of the experts' opinion and suggestion five internal and six external factors are investigated which seem relevant to the practical context of the companies under study. In order to analyze the influence of these factors on disclosure a set of hypotheses have been drawn.

3.4.1 The Dependent Variable – Disclosure Practice in the Annual Reports

From the previous literature it can be realized that DSE-listed manufacturing companies in Bangladesh provides both mandatory and voluntary type information in their annual reports. The present research uses mandatory disclosures and voluntary disclosures as two separate dependent variables. Both types of disclosures are important and interact with each other frequently. Dye's theory (1986) proposes an association between mandatory and voluntary disclosures. Several other researchers (Al-Htaybat, 2014; Al-Razeen & Karbhari, 2004) argue for a positive relationship between the two types of disclosure. The primary hypothesis of this study is:

Hp: The extent of voluntary disclosures in the annual reports of listed manufacturing companies in the DSE is positively associated with the extent of mandatory disclosures.

3.4.2 Determinants of Corporate Disclosure

This study hypothesizes that accounting disclosure of the manufacturing companies listed in the Dhaka Stock Exchange (DSE) is associated with the companies' internal attributes and external environmental factors.

3.4.2.1 Independent Variables – Internal Factors

The present study has considered five company attributes as internal factors for testing the hypothesis. According to the contingency theory these factors are considered as companies' internal contingent variables. These variables are discussed below:

a. Size: This variable has been popularly used as determinants in the disclosure literature (e.g., Akhtaruddin, 2005; Barako et al., 2006; Chakroun & Matoussi, 2012; Cooke, 1989, Hassan et al., 2006; Hasan & Hossain, 2013;Daset al., 2015; Lang & Lundholm, 1993; Owusu-Ansah, 2005). Size has also been used as one of the key influences on any company's activities in the studies using contingency theory (Ajibolade, 2013; Elsayed & Hoque, 2010; Oyewo, 2017). In prior research, this variable has been calculated by various measures including sales, log of total sales, total assets, log of total assets, number of employees, number of shareholdings etc. There is no specific reason to prefer one to another (Cooke, 1989). Consistent with prior research, the present study assumes that larger companies have the benefit of carrying the increased cost of detailed reporting and can avoid the risk of increased competition. So these companies are expected to provide more disclosure comparing to the smaller ones. Therefore, the following hypotheses have been estimated:

H1a: The extent of mandatory disclosures in the annual reports of the listed manufacturing companies in the DSE is positively associated with their size.

H1b: The extent of voluntary disclosures in the annual reports of the listed manufacturing companies in the DSE is positively associated with their size.

b. Qualifications of Accountants: Studies found that qualification of accountants of the reporting company influence its disclosure level (Hossain et al., 2015). According to the contingency theory human resources or quality of employees are considered as an influencing variable (Alboali et al., 2013). From the interview conducted for this study with the experts, qualification of accountants has been identified as an important factor in disclosure. Thus this is being considered as an explanatory variable for disclosure in the present study. Literature shows that there is a lack of qualified accountants in Bangladesh (Nurunnabi, 2012; Quraishi & Islam, 2014; World Bank, 2003). It can be expected that professionally qualified accountants would produce better disclosure in annual reports than unqualified or less qualified accountants. So the hypothesis is:

H2a: The quality of accountants in the listed manufacturing companies in the DSE positively influences the mandatory disclosures in the annual reports.

H2b: The quality of accountants in the listed manufacturing companies in the DSE positively influences the voluntary disclosures in the annual reports.

c. Profitability: Many researchers recognized a positive association between profitability and extent of disclosure (Akhtaruddin, 2005; Das et al., 2015; Hassan et al., 2006; Hasan & Hossain, 2013). Prior studies have used many items as proxies for profitability like net profit to sales, return on equity and return on assets.etc. It is claimed in many studies that highly profitable companies are more exposed to regulations. These companies tend to provide extended disclosure in the annual reports in favor of their performance and to avoid political costs (Watts & Zimmerman, as cited in Hossain &Hammami, 2009). In contrast, there is argument that more profitable firms tend to avoid attracting competitors and show reluctance in disclosing more information (Prencipe, as cited in Mokhtar, 2010). Sometimes disclosing information about sensitive issues of a company may increase the risk of competition (Chakroun & Matoussi, 2012;Hossain et al., 2015); so fear of increased competition may influence the attitude of management while publishing the annual report. On the basis of previous studies' findings it is understood that association between profitability with disclosure is inconsistent. Competition is an important contingent variable under contingency theory (Ern, Abdullah, & Yau, 2016; Shahzadi, Khan, Toor, & Haq, 2018). Moreover, Thomas (1991) identified profitability as an internal contingent variable.Considering the theoretical concept, literature review and the experts' interview, the present study assumes that profitable companies tend to avoid detailed disclosure. So the following hypothesis is developed:

H3a: There is a negative association between profitability and the level of mandatory disclosures in the annual reports of the listed manufacturing companies in the DSE.

H3b: There is a negative association between profitability and the level of voluntary disclosures in the annual reports of the listed manufacturing companies in the DSE.

d. Ownership structure: Ownership structure is considered as an important factor in disclosure. Previous literatures have shown that if ownership is concentrated by the sponsor in a company its disclosure behavior may be influenced (Hossain & Arifur, as cited in Das, 2015). Chau and Gray (2002) found that family-controlled firms provide comparatively low level of disclosure. Most of the public limited companies in Bangladesh are mainly controlled by founding sponsors/directors resulting a high level of ownership concentration. From the literature Das et al. (2015) observes that level of disclosure tend to have a negative association with management ownership structure. From the experts' interview it has been understood that management of some listed companies in Bangladesh tries to avoid detailed disclosure in annual reports. Thus it is expected that a company having ownership structure concentrated by insiders (family members and management) tend to provide less information and the hypothesis is:

H4a: Insider ownership concentration has a significant negative impact on the extent of mandatory disclosures in the annual reports of listed manufacturing companies in the DSE.

H4b: Insider ownership concentration has a significant negative impact on the extent of voluntary disclosures in the annual reports of listed manufacturing companies in the DSE.

e. Types of Industry: Industry type an important variable as per the contingency theory (Elsayed & Hoque, 2010; Shahzadi et al., 2018; Thomas, 1991). In disclosure literature, previous researchers argued that companies from different industries vary in their level of disclosure (Alfraith & Almutawa, 2014; Aljifri, Alzarouni, Ng& Tahir, 2014; Akhtaruddin, 2005; Elsayed & Hoque, 2010). Prior researchers have defined types of industry in different ways, such as; manufacturing and non-manufacturing; modern and traditional etc. As this study only covers listed manufacturing companies, the sample companies have been categorized as; traditional and modern as per previous studies (Akhtaruddin, 2005; Hasan & Hosain, 2015).

Traditional companies are food, textile, jute, synthetic, paper, cement, and sugar. Modern companies, which tend to use new technologies, include engineering, pharmaceuticals, chemicals, and metal alloys. The hypotheses drawn is:

H5a: A modern listed company discloses more mandatory information in the annual report.

H5b: A modern listed company discloses more voluntary information in the annual report.

3.4.2.2 Independent Variables – External Factors

According to contingency theory external environmental factors includes educational, economic, political-legal and social (socio-cultural) factors (Schweikart; Thomas, as cited in Omran & El-Galfy, 2014). In the present study association of accounting disclosures of the DSE-listed manufacturing companies with six external factors has been investigated.

a. Regulatory Bodies (Legal and Political Factor): Effective control & enforcement mechanism can ensure a better environment for corporate reporting (Jain, 2011). Literature review suggests that strong monitoring system can be beneficial for establishing efficient disclosure environment (Alam & Chowdhury, 2012; Belal & Cooper, 2011; Al-Shammari, Brown & Tarca, 2008; Hossain et al., 2015; Nurunnabi, 2015; Schipper, 2005; Sufian, 2016). General shareholders' interest remains well protected if there is a strong regulatory environment (Healy & Palepu, 2001). The Registrar of Joint Stock Companies (RJSC) and the Bangladesh Securities and Exchange Commission (BSEC) are the two main regulatory bodies for the disclosure practice of listed companies. It has been understood from the literature that they are not playing an effective role in enforcing regulations of disclosures (World Bank, 2003; World Bank 2015). The ROSC report of World Bank (2015) observes that there is an improvement in the enforcement activities of the BSEC after the 2010 stock market crash, but the RJSC has not yet shown that much improvement. The BSEC has stepped up its enforcement actions, some of which received wide coverage by the media. These actions have proved the active role of the BSEC to monitor the capital market environment and members of the market have become more aware about complying with the regulations (The Aries Group, Ltd., 2015). Consequently it is expected that there would be an improvement in disclosure situation. In this study the BSEC has been considered as the regulatory authority for corporate disclosure. Thus it is hypothesized that:

H6a: The level of mandatory disclosures provided by listed manufacturing company in the DSE is positively associated with its perceived influence of regulatory bodies.

H6b: The level of voluntary disclosures provided by listed manufacturing company in the DSE is positively associated with its perceived influence of regulatory bodies.

b. Professional Bodies (Socio Political Factor/ Educational Factor): Many researchers have recognized the responsibility of the professional bodies in a country to influence the corporate disclosure practices (Alam & Chowdhury, 2012; Branson & Muiz, 2011; Hutaibat, Alberti, &Al-Htaybat, 2011; Nurunnabi, 2015). In Bangladesh, the reporting practices of listed manufacturing companies are guided mainly by two professional bodies the Institute of Chartered Accountants of Bangladesh (ICAB) and the Institute of Cost and Management Accountants of Bangladesh (ICMAB).In order to promote good reporting practices, these organizations provide awards to the companies publishing annual reports. Some previous researchers have studied awards as a motivating factor. In this study awards offered by the ICAB, the ICMAB etc is considered as the proxy of influence by the professional bodies on corporate disclosure. The hypothesis for this study is:

H7a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of professional bodies.

H7b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of professional bodies.

c. Tax Authorities (Legal and Political Factor): Accounting and reporting practice of a company may be affected by the tax system prevailing in the country.Tax policy has impact on the presentation of annual report about the financial performance and position of a company. The tax authority has legal power to check the profits shown by a company. In Bangladesh tax laws influence the presentation of the general-purpose financial statements. The preparers and auditors of financial statements tend to follow the accounting treatments that are acceptable under the tax rules (World Bank, 2003).In this study the hypothesis is:

H8a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of tax authorities.

H8b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of tax authorities.

d. External Shareholders (Economic Factor): Many researchers have mentioned external shareholders/investors as an influencing factor for corporate reporting practices (Elijido-Ten, 2004; Gray et al., as cited in Elsayed, 2008).Investors' demand for information about the activities of a company is considered as an economic factor (Elsayed, 2008). As external investors/ shareholders are the main stakeholders of a company, the company management must consider the need of them while preparing annual reports. From the interview with the experts, it has been understood that external shareholders in Bangladesh now-a-days are becoming aware about the information published in annual reports of the listed companies. The present study infers the following hypothesis with regard to external shareholders:

H9a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of external shareholders.

H9b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of external shareholders.

e. Trade Associations (Socio-Political Factor): Several prior studies (Al-Omari, 2010; Elsayed, 2008; Solomon & Lewis, 2002) have mentioned that trade associations also influence the reporting practices of companies in a country. Nurunnabi (2012) observes that trade associations in Bangladesh are not involved in setting accounting standards and their role in disclosure practice is not known. He suggests that it is necessary to conduct studies on the status of trade associations in this regard. Reporting companies usually hold membership in any trade association and the authority of that association may require the members to disclose proper information in their annual reports. So, trade associations are expected to affect the accounting disclosure system. They may act as normative force by creating a network effects with a common language and disclosure practices. In this study the following hypothesis is developed:

H10a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of trade associations.

H10b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of trade associations.

f. Media (Socio-Cultural Factor): Some researchers mention media as an important influencing factor for the corporate reporting practice **(**Islam & Deegan, 2008). Media may create pressure for disclosure of true and proper information. In Bangladesh media played an important role in disclosing information about child labor and women employees in the readymade garments sector. Information about regular stock market activities gets good coverage by the media. In the experts' interview it has been mentioned that in our country media are becoming more concerned about the activities of the listed companies. So, the hypothesis for this study is:

H11a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of media.

H11b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of media.

3.4.3 The Conceptual Framework

Figure 3.2 depicts the conceptual framework for this study. Annual reports of manufacturing companies listed in the DSE disclose both mandatory and voluntary information. It is assumed that voluntary disclosure is positively related with mandatory disclosures. It is also assumed that both types of disclosures are influenced by company's internal factors or company attributes and also by the external factors. To keep the study within a manageable size, only the external factors in the national boundary are considered in this study.

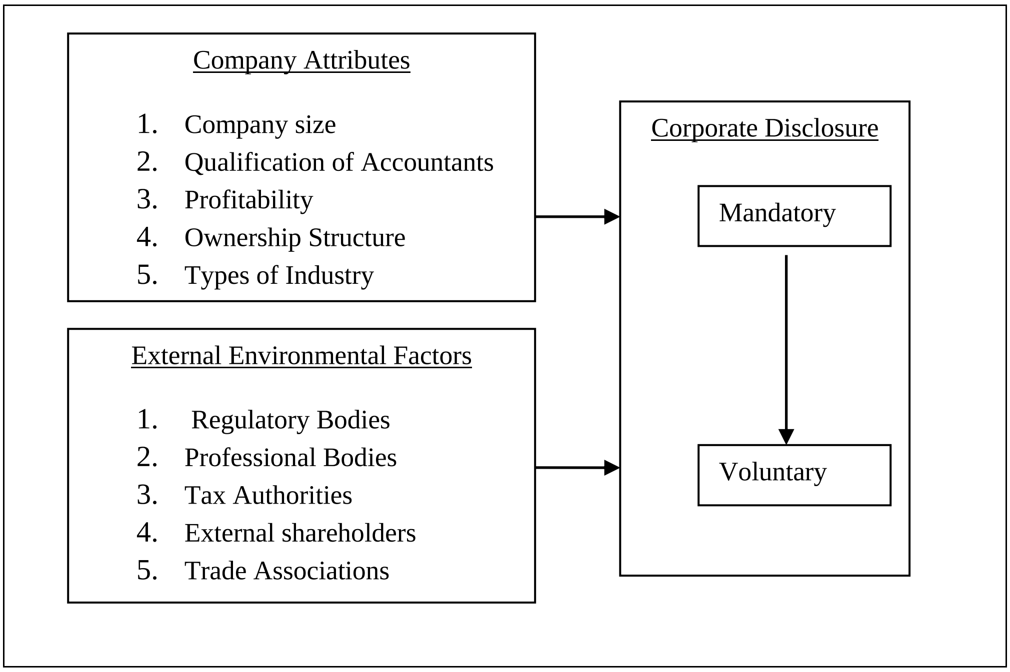


Figure 3.2: Conceptual Framework of the Study

3.5 Summary

This chapter has provided a discussion of popular disclosure theories. Agency theory has been used by many researchers for describing the role of disclosures as a means to fulfill the responsibility of managers as agents of shareholders. But at present time application of this theory have been criticized by various researchers as it focuses only on the wealth maximization aspects of disclosures. Organizations in today's world act as social units, so they have to provide information about their activities according to requirements of the society. As a result legitimacy theory, stakeholder theory and institutional theory have gained popularity in contemporary literature. These theories explain how organizations provide information according to the demands created by the society, the stakeholders and other institutional parties. Recently researchers are also applying contingency theory which provides an idea that disclosure behavior of different organizations can't be explained in the same way rather it depends on their internal and external contingent factors. Dye's theory proposes a positive relation between mandatory disclosures with voluntary disclosures. The present study uses contingency theory to explore the influence of different contingent (both internal and external) factors on the annual report disclosure of the DSE-listed manufacturing companies. This research also applies Dye's theory in order to investigate the nature of relation between mandatory and voluntary disclosures.In addition, this chapter discusses the process of developing the hypotheses for this research. A conceptual framework has been constructed to define the area of concern for this study. Primarily it has beenhypothesized that mandatory and voluntary parts of disclosures in the annual reports are complementary to each other. Some hypotheses have been developed in order to explain the relation between both types of disclosures with several company’s internal attributes and external environmental factors.Internal factors include size, qualifications of accountants, profitability, ownership structure and industry type of the relevant company. On the other hand, external factors include regulatory bodies, professional bodies, tax authorities, external shareholders, trade associations and media. On the basis of corporate reporting environment in Bangladesh, literature review, theoretical discussion and experts’ opinion, it has been hypothesized that both mandatory and voluntary disclosures have positive relation with all these factors except profitability and insider ownership concentration of a company.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.0 Introduction

The present chapter explains the methodological aspects of the study. Section 4.1 presents the research design while section 4.2 outlines the research approach; section 4.3describes the data collection methods; section 4.4 discusses how the variables are measured; section 4.5 explains the data analysis procedure; section 4.6 outlines the models used in the study; section 4.7 describes the testing methods of the assumptions of OLS method; section 4.8depicts the reduced models; section 4.9 discusses the data transformation process; section 4.10sets the relation between two types of disclosures; section 4.11mentions the instruments for data analysis and finally section 4.12 provides a summary to this chapter.

4.1 Research Design

This study is considered to be descriptive and explanatory in nature. Descriptive research mainly portrays events, persons or situations (Robson, as cited in Mokhtar, 2010). The present research aims to describe the level and causes of variations in the disclosure of listed manufacturing companies in Dhaka Stock Exchange. Explanatory research is an extension of descriptive research. The main focus of this type of research is to explainthe associations between variables (Collis & Hussey, as cited in Mokhtar, 2010).The purpose of the present research is to explain the relationship between disclosure level (dependent variable) and its influencing factors (independent variables), therefore it is an explanatory research also.

4.2 Research Approach

The main focus of this study is to identify the influence of both internal and external factors on a DSE-listed manufacturing company's disclosure. A qualitative approach has been used to gather a rich understanding and interpretation of the disclosure phenomena in Bangladesh context. An in depth interview has been undertaken in order to gather experts' opinion about the relevant factors. Some hypotheses have been formulated to investigate the influence of these factors on disclosure level. Hence quantitative method is being used for examining the hypotheses. The deductive approach is considered to be more appropriate for the current research in order to explain relationship between variables. Under this approach a set of hypotheses is developed, data is collected and hypotheses are tested by using a structured methodology for the reproduction of results (Gill & Johnson, as cited in Das, 2015). So a deductive approach fits to this study since it is explorative in nature and a theory is to be tested.

Although there are major differences between quantitative and qualitative approaches, many researchers have used a combination of them referring as triangulation or a multi-method approach (Wimmer & Dominick, as cited in Mokhtar, 2010). Triangulation approach is more advantageous as it avoids the drawbacks of each method by the benefits of another. This approach also may help the researcher with broader and complementary perspectives to the topic under study (Mokhtar, 2010). Therefore, in order to achieve methodological triangulation a mixed method approach has been used for the present study by including both qualitative and quantitative methods of collecting and analyzing data.Finally findings of the two sources of data are used to serve the research objective.

4.3 Data Collection Methods

The data gathering methods for this study are explained as; data collection considerations, population of the study, sample of the study, sources of data.

4.3.1 Data Collection Considerations

While gathering data in the context of Bangladesh, researchers commonly face some difficulties for getting access to the accurate persons, need for permission, and lack of accurate and contemporary data. In the present study similar types of problems have been faced by the researcher.

At the very outset of the study, a face to face interview has been conducted with some persons from different organizations (the BSEC, the ICAB, audit firms etc) having expert knowledge about the disclosure practice of Bangladesh. Participants for the interview are chosen according to their area of practice. Sometimes one interviewee has suggested the name of the next person as he felt opinion of the later person may be important regarding this topic.

Later a questionnaire survey has been conducted as per the previous studies based on contingency theory (Ajibolade, 2013; Azam, 2014; Elsayed & Hoque, 2010; Nogueira & Jorge, 2016). The main purpose of the questionnaire survey was to understand perception of the management (especially the CFO or the CS) about the influence of external factors on disclosure of their company. They are selected as interviewees for several reasons. Firstly, being senior managers they may possess authority in the strategic decisions regarding annual report disclosure of their companies. Secondly, they seem to be well informed about the rules and contemporary practice of corporate reporting. Finally, they are closely related in the preparation and publication of annual reports.

Beside the questionnaire survey, annual reports (for the accounting year ended within December, 2017) of the respondent companies have been collected for content analysis purpose. Companies having two different accounting year-ends, 30th June and 31st December, are included in the sample. This should not influence the results of this study since accounting year is not reflected as a relevant factor for this research. The annual reports of a single accounting period have been collected because of two reasons. Firstly, it was the intention of the researcher to use data of the most recent reporting period during the study. Secondly, the issues of changesin economy and accounting regulations can be avoided by using data of one period.

4.3.2 Population of the Study

The present study mainly aims to focus on disclosure practice of the listed manufacturing companies in the DSE. There were three hundred and thirty three companies listed with DSE during the accounting period covered by the study; of these one hundred and sixty three companies were involved in manufacturing activities. In the DSE, ten types of industries were involved in manufacturing sector comprising: cement, ceramic, engineering, food & allied, jute, paper & printing, tannery, pharmaceuticals & chemical, textile and miscellaneous, as shown in Table 4.1.

The effective number of population for the research has been determined based on a systematic elimination procedure, similar to prior disclosure studies (Abdullah, Evans, Fraser, & Tsalavoutas, 2015; Maharani & Siregar, 2011) regarding the following conditions:

a. Companies should have been listed on the DSE during the full period of July 2016 to June 2017 (the latest financial period during the study).
b. Companies should not have stopped their transactions during this period.
c. Companies falling in Z category in stock listing during this period should be excluded.

Table 4.1: Population of the Study

Sector	**Number of companies**
Engineering	34
Food & Allied Product	18
Jute	3
Textile	48
Pharmaceuticals & Chemicals	28
Paper & Printing	2
Cement	7
Tannery	6
Ceramic	5
Miscellaneous	12
Total	163

Note. Data collected from Dhaka Stock Exchange (2017)

After considering the above conditions, the effective number of population stands as follow:

Total listed manufacturing companies during the period	163
Less: Z category manufacturing companies	18
Less: Newly enlisted manufacturing companies in DSE	4
Effective number of (manufacturing companies) population for this study	141

Note. Data collected from Dhaka Stock Exchange (2017)

4.3.3 Sample of the Study

The present study has collected primary data from two sources- an interview and a questionnaire survey- from two types of respondents. Sample from the two sources are discussed below:

4.3.3.1 The Interview Sample

Primarily an interview has been conducted with ten individuals from Bangladesh who were identified for their expert knowledge about the disclosure practice in Bangladesh. Initial contact was made with them personally by telephone. The interviewees include a commissioner of the BSEC, a vice president of the ICAB, three individual partners from three separate audit firms with international affiliation, a chief consultant to an audit firm affiliated by an international audit firm, a CFO (having the CA degree) of a renowned non-listed multinational manufacturing company, a CFO (having the CMA degree) of a listed multinational manufacturing company, a CS (having the CS degree) of a renowned listed multinational manufacturing company, an advisor (FCCA) to an audit firm

4.3.3.2 The Survey Sample

The study made a questionnaire survey among the DSE-listed manufacturing companies. The questionnaire was sent randomly to the companies by personal contacts requesting opinion of the CFO or the CS or any responsible person for preparing annual reports of the companies. Beside this, formal emails (electronic mails) were sent to the official email address (as collected from the BSEC) of all the manufacturing companies listed on DSE. Unfortunately no response was being received from the emails. The researcher could gather responses from fifty listed manufacturing companies (through personal contact) representing thirty five percent of the population (Table 4.2).

This sample size is compatible to the other quantitative disclosure studies in Bangladesh and international context (Abdullah et al., 2015; Hasan &Hossain, 2013;Huiyun & Peng, 2011;Maharani & Siregar, 2011;Sobhani et al., 2009). However, many earlier studies prove that it is not easy in Bangladesh to reach the concerned officials of different organizations and large number of participants cannot be expected may be due to the concern of secrecy (Belal & Owen, 2007; Islam & Deegan, 2008; Islam & Dellaportas, 2011; Nurunnabi, 2015). The sample size of the present study is also equivalent to the studies using contingency theory (Andesto,2016; Alboali et al., 2013; Azam, 2014;Courtois, Gombart, Pignatel, & Brown, 2011).

Table 4.2: Sample of the Study

Industry	**Population**	**Sample**	**%**
Engineering	31	12	39%
Food & Allied Product	13	5	38%
Jute	2	1	50%
Textile	41	8	20%
Pharmaceuticals & Chemicals	26	12	46%
Paper & Printing	1	0	0%
Cement	7	3	43%
Tannery	5	3	60%
Ceramic	4	1	25%
Miscellaneous	11	5	45%
Total	141	50	35%

4.3.4 Categorical Description of the Sample Companies

Table 4.3 shows classification of the sample companies according to some of their attributes. It is observed that, companies having more than 50% insider owners comprise of 46 per cent of total sample. Of the sample 48% companies have the CFO with CA or equivalent degree. Also the sample includes almost similar number of modern (48%) and traditional (52%) types of companies.

Table 4.3 Profile of the Sample Companies

Category	Criterion	Frequency	%
Ownership Concentration	Insider owners hold more than 50% of shares	23	46
	Insider owners hold less than or equals 50% of shares	27	54
	Total	50	100
CFO qualification	CFO has CA or equivalent degree	24	48
	CFO doesn't have CA or equivalent degree	26	52
	Total	50	100
Industry Type	Modern companies	24	48
	Traditional Companies	26	52
	Total	100	100

4.3.5 Sources of Data

The present study uses both qualitative and quantitative sources to gather data. Qualitative method refers the face to face interview with ten experts in the relevant field to this study. Quantitative data has been collected from primary source as well as secondary source. Primary data has been gathered through a questionnaire survey from the persons related with the accounting and reporting practice of companies under study. In this part the data collection method of previous studies using contingency theory (Elsayed & Hoque, 2010; Azam, 2014) has been followed. The secondary data was collected from annual reports of the companies under study.

4.3.5.1 Primary Data - The Interview

A face to face semi structured interview was undertaken over a two month's period (from February 2017 to March 2017) with ten individuals who have practical experiences with the disclosure and reporting practices in Bangladesh. The present researcher personally conducted all the interviews. Notes were taken with the consent of the interviewees. The duration of the interviews ranged from about thirty minutes to two hours. All interviews started with a brief introduction of the research and an outline of the objectives of the interview. The main topics of the interviews were devoted to developing a critical understanding of the causes of unsatisfactory disclosure and the key factors affecting the reporting practice of listed manufacturing companies in Bangladesh. A specimen copy of the consent letter of the participants and interview questions are given in Appendix 4.1 and Appendix 4.2.

4.3.5.2 Primary Data - The Survey

In order to test the hypotheses, it was needed to collect view of concerned persons about the perceived influence of external factors in the process of corporate reporting. A questionnaire survey was conducted to collect opinion from the CFO or the CS or any responsible person for preparation of annual reports. The questionnaire was sent through personal contact and official emails also. In the practical context of Bangladesh it is difficult to reach such high ranked officials for survey purpose. Finally, fifty successful responses were received.

The questionnaire depicts main aspects of the research. A Likert type scale has been selected with a view to get the opinion of the respondents about the perceived influence of the relevant factors. The questionnaire of the study is provided in Appendix 4.3.

The questionnaire was prepared on the basis of questionnaire used in the study by Elsayed & Hoque (2010) which was collected personally through email. To ensure the content validity, the questionnaire was then reviewed by two subject expertsfor necessary modifications.

To ensure reliability, the questionnaire was tested by using Cronbach's coefficient alpha as it is the most popular measurement scale for internal consistency. The value of the coefficient measures the average correlation among the items of the scale ranging from '0' to '1', where '0' refers low and'1'refers high reliability. A value of '0.7' is generally accepted as a rule of thumb. Table 4.4 shows the reliability of the data collection instruments regarding mandatory and voluntary disclosure.

Table 4.4: Reliability Test of Survey Questionnaire

For Mandatory Disclosure	Cronbach'salpha = .706
For Voluntary Disclosure	Cronbach'salpha=.764

4.3.5.3 Secondary Data - Content Analysis

For the content analysis, secondary data was utilised from audited annual reports (for the accounting year ended within 31st December, 2017) of the sample companies. For the purposes of this study, two separate checklists were used for collecting data about the dependent variables. The number and items consisting in the disclosure checklists are not determined by any specific theory (Wallace et al., as cited in Umoren, 2008).The purpose of the research determines the items to be selected. Most of the times researchers develop the disclosure checklist according to the previous studies, existing rules and regulations, suggestions of experts and professionals etc (Das, 2015).This study prepared the two check lists by using the following steps:

- **The Mandatory Checklist:** For purposes of this study, a mandatory disclosure checklist was developed on the basis of the disclosure requirements of Securities Exchange CommissionRules 1987; DSE Listing Regulations 2015; Companies Act 1994 and relevant IASs / IFRSs issued by the IASB (as adopted by the ICAB). The mandatory disclosure checklist was mainly adopted from the checklist developed by Akhtaruddin (2005). Some modifications were made by observing the studies of Das (2015), Rahman, M. (2014) and abovementioned regulations in order to match the contemporary practice of the sample companies. It was observed that almost every company claimed to have fully complied with the corporate governance disclosure requirements. This is de jure compliance in response to BSEC rules. Therefore the inclusion of these items in the checklist may create a bias in the measure of disclosure index because the number adds to both numerator and denominator of the ratio measure. The study thus excluded these items (excepting the items required for director's report). This type of exclusion has been done according to the study of Rahman, M. (2014). Finally, the number of items included in the present mandatory checklist stood at one hundred and ninety nine. The items were also compared with a checklist used by a renowned audit firm for practical audit work. Reliability of a research instrument may be threatened due to the subjective judgment while making it(Vlachos, as cited in Bitew, 2015). In the present study the mandatory disclosure index was adopted from the abovementioned regulations and checklist without doing any major modifications, therefore its reliability should fall in an acceptable range.A copy of the mandatory disclosure checklist for this research is presented at Appendix 4.4.

- **The Voluntary Checklist:** For the voluntary disclosures a separate checklist was constructed. Items included in the checklist were mainly based on previous studies conducted on the listed manufacturing companies of Bangladesh (Das, 2015; Hasan & Hosain, 2015; Islam, 2009; Khan et al., 2013; Sobhani et al., 2009) and contemporary practice in annual reports of the sample companies. Forthe reliability of the checklist, Cronbach alpha test has shown a score of 0.865. In order to achieve the validity of this research instrument, independent reviews have been collected from three subject experts. On the basis of the reviews few changes were made to the checklist. Therefore the voluntary disclosure checklist comprises fifty three items on several categories (Appendix 4.5).

4.4 Measurement of Variables

4.4.1The Scoring Procedure for Dependent Variables

The present study considers mandatory disclosures and voluntary disclosures as two separate dependent variables and they are measured by separate disclosure indexes. Measuring disclosure (the dependent variable) by disclosure index is very popular in the accounting literature (Akhtaruddin, 2005; Elsayed & Hoque, 2010;Umoren, 2008). Disclosure index has been used frequently by researchers in this field for more than forty years since Cerf's study in 1961 (Marston & Shrives, as cited in Mokhtar, 2010). There are two methods of computing disclosure index – weighted and unweighted. Under the weighted approach the value of each item may vary according to the biasness of the users. On the other hand, in unweighted approach all items are given the same weight by considering each of them equally important. There are controversies among the researchers about the use of either weighted or unweighted disclosure index. Cooke (as cited in Umoren, 2008) argues that in weighted method the subjective weights of all groups average each other out. Furthermore, Hodgdon argues that attaching weights to the items is irrelevant because there may be a tendency among the companies to approach with less significant information along with the most important ones (as cited in Elsayed, 2008). However, unweighted approach has become popular among the researchers to avoid subjectivity by giving each item equal importance and providing an impartial assessment. Researchers have used simple dichotomous (nominal) method for measuring the inclusion or exclusion of the relevant items, thus converting disclosure to a binary variable. If the information item is relevant and disclosed in the annual report it is awarded 'one' and 'zero' if it is relevant but not disclosed (Mokhtar, 2010). The total score is computed by the following formula: [(number of items disclosed)/ (number of items disclosed + number of items not disclosed)] (Patton & Zelenka, as cited in Mokhtar, 2010). The present study uses the unweighted method for scoring, where each relevant item on the checklist is assigned a value of '1' if it is disclosed and '0' if any relevant item is not disclosed. The companies are not penalized for nondisclosure of irrelevant items. Before scoring disclosures, annual reports of the companies were reviewed thoroughly in order to gather an understanding about their operational activities and identify relevant and irrelevant information for individual companies.

The present study uses two separate indexes for mandatory and voluntary disclosure computed by the following formula:

1. $$MDIx = \sum TMDx / nx$$

Where, *MDIx* is the mandatory disclosure index scored by company x, where, $0 \leq MDIx \leq 1$; *TMDx* is the total number of mandatory (relevant) items disclosed by company x; *nx* is the maximum number of mandatory (relevant) items expected to be disclosed (according to the checklist used in the present study) by company x.

2. $$VDIx = \sum TVDx / nx$$

Where, *VDIx* is the voluntary disclosure index scored by company x, where, $0 \leq VDIx \leq 1$; *TVDx* is the total number of voluntary (relevant) items disclosed by company x; *nx* is the maximum number of voluntary (relevant) items expected to be disclosed (according to the checklist used in the present study) by company x.

4.4.2 Independent Variables – Internal Factors

In this study five attributes of the companies have been considered as internal factors. Data about these variables have been collected from the annual reports. Measurement procedures for these variables are discussed below:

i. Company size: In this research, size of the company is determined by the annual sales of the company. Dispersion of actual sales amount among companies under this study is very high. To avoid heteroskedasticity, this study uses logarithms of total sales (revenues) as a proxy for size (Elsayed & Hoque, 2010).

ii. Qualification of Accountants: It has been recognized from the literature review and experts' opinion that there is a lack of qualified chief financial officers (CFO) among the listed manufacturing companies of DSE. In this study the qualification of a CFO is considered by the Chartered Accountant (CA) or equivalent degree. If the CFO of a company has the CA or an equivalent degree, the proxy value is given '1' and '0' if otherwise (Hasan et al., 2008).

iii. Profitability: Various researchers have used Return on Assets as the measurement of companies' profitability (Das, 2015). Thus profitability is measured in the present study by Return on Assets (ROA), that is, net income divided by total assets.

iv. Ownership structure: In literature fifty percent or more sponsors' ownership has been considered as the concentrated ownership by some researchers (Das et al., 2015). The present study captures this factor with a dummy variable of '1' if the insider owners (sponsors, directors etc.) of a company hold more than 50% of the ownership and '0' if otherwise.

v. Industry type: It has been learned from the previous studies that different types of companies tend to disclose different amount of information (Akhtaruddin, 2005).In this study, industry type of the companies under study has been defined as 'modern' and 'traditional'. The dummy variable is "0" for traditional company and "1" for modern company.

4.4.3 Independent Variables – External Factors

Six variables prevailing in the outer environment of a company are considered as external factors in this study. Data about these variables have been collected from the questionnaire survey. The measurement procedures of these variables are discussed in turn:

i. Regulatory Bodies: The Bangladesh Securities and Exchange Commission (BSEC) represents the regulatory bodies in this study. The perceived influence of BSEC on disclosure practice of the sample companies has been measured by using a single-item instrument that ask participants to indicate, on a five- point Likert- type scale, anchored as 5 = To a very great extent; 4 = To a large extent; 3 = To a moderate extent; 2 = To some extent; 1 = To a little or no extent; to indicate the extent to which BSEC affect their organization's accounting disclosure practice.

ii. Professional Bodies: This study intends to investigate the effect of professional bodies especially ICAB on the accounting disclosure practice. On the basis of previous literature and experts' interview, it has been understood that award given by professional bodies like the ICAB, the ICMAB, etc. motivates companies to disclose more information in their annual reports. The respondents have been asked by using a five point Likert- type scale ranging as follows: 5 = To a very great extent; 4 = To a large extent; 3 = To a moderate extent; 2 = To some extent; 1 = To a little or no extent; to indicate the extent to which the desire for getting award from the professional bodies affect their organization's accounting disclosure practice.

iii. Tax Authorities: To measure this variable, the survey instrument ask respondents to perceive the extent to which tax authorities affect their organization's disclosure practice by using a five- point Likert- type scale as follows: 5 = To a very great extent; 4 = To a large extent; 3 = To a moderate extent; 2 = To some extent; 1 = To a little or no extent.

iv. External Shareholders: This study measures the influence of external shareholders on corporate disclosure by asking respondents, using a five- point Likert-type scale, anchored as 5 = To a very great extent; 4 = To a large extent; 3 = To a moderate extent; 2 = To some extent; 1 = To a little or no extent; to indicate the extent to which external shareholders affect their organization's disclosure practice.

v. Trade Associations: To assess the affect of this variable on disclosure, the survey instrument ask respondents, on a five- point Likert- type scale, anchored as 5 = To a very great extent; 4 = To a large extent; 3 = To a moderate extent; 2 = To some extent; 1 = To a little or no extent; to indicate the extent to which trade associations (such as FBCCI, MCCI etc) affect their organization's accounting disclosure practice.

vi. Media: This study measures the influence of media on accounting disclosure practice by asking respondents, on a five- point Likert- type scale, anchored as 5 = To a very great extent; 4 = To a large extent; 3 = To a moderate extent; 2 = To some extent; 1 = To a little or no extent; to indicate the extent to which media affect their organization's accounting disclosure practice.

4.5 Operational Definitions of Variables

Table 4.5shows operational definitions, label and expected signs of variables.

Table 4.5: Variables and their Expected Signs

Variables	Operational Definition	Label	Expected sign
Mandatory Disclosures	Mandatory Disclosure Index	MDI	N/A
Voluntary Disclosures	Voluntary Disclosure Index	VDI	N/A
Size	Natural log of total sales	SIZE	+
Profitability	Return on Assets	PRT	-
Qualification of Accountants	CFO having CA or Equivalent degree	CFO	+
Ownership Structure	Insider owners holding more than 50% of ownership	INSDR	-
Industry Type	Type of company is modern	INT	+
Regulatory Bodies	Perceived influence of the BSEC on disclosure practice	BSEC	+
Professional Bodies	Perceived influence of award by professional bodies on disclosure practice	AWRD	+
Tax Authorities	Perceived influence of tax authorities on disclosure practice	TXAT	+
External Shareholders	Perceived Influence of external shareholders on disclosure practice	EXSH	+
Trade Associations	Perceived influence of trade associations on disclosure practice	TRDS O	+
Media	Perceived influence of media on disclosure practice	MED	+

4.6 Data Analysis

Data has been analyzed by a combination of both qualitative and quantitative method.

4.6.1Qualitative Analysis

This part of the study provides discussion about the face to faceinterview with experts in this field. A frequency table has been presented to show results ofthe interview about major factors influencing the disclosure practice of listed manufacturing companies in DSE.

4.6.2Quantitative Analysis

The quantitative techniques utilized in this research are as follows:

i. Univariate Analysis: The first two research questions regarding the extent of mandatory disclosures and voluntary disclosures are answered with univariate analysis. It contains analysis of descriptive statistics including mean, range, standard deviation, skewness and kurtosis measures of these variables. Here the study aims to investigate the level and pattern of disclosures of the companies under study.

ii. Bivariate Analysis: In order to answer the third and fourth research questions (regarding association between two types of disclosures and the influencing factors), primarily a bivariate analysis has been conducted by computing the Pearson's correlation coefficient of variables. Value of the correlation coefficient ranges from '-1' (referring a perfect negative relation) to '+1' (referring a perfect positive relation). For referring no relationship between the variables, the coefficient shows a value of '0'.

iii. Multiple Regression Analysis: Finally multiple regression analysis is used to explain the association between dependent variables and independent variables. Although the correlation analysis provides an idea about relation between variables, regression analysis is done for testing the effect of each independent variable when they are considered at a time. One of the limitations of correlation test is that, if there are multiple variables affecting a dependent variable it does not tell how a change in the set of predictor variables affects the dependent variable. An independent variable having low correlation coefficient with the dependent variable may change its behavior when several variables interact in the specific situation.

4.7 Model Specification

To test the hypotheses, separate multiple regression models for the two dependent variables (mandatory disclosures and voluntary disclosures) are developed. Many researchers have used this method of model development for disclosure studies (Das, 2015; Umoren, 2008). Forms of the models are given below:

A. **Mandatory Disclosures:** The following models have been developed for mandatory disclosures:
   - To estimate the influence of the internal factors:

$$MDI \; = \; f \; (SIZE, PRT, CFO, INSDR, INT) \ldots\ldots \; 1$$

   - To estimate the influence of the external factors:

$$MDI \; = \; f \; (BSEC, AWRD, TXAT, EXSH, TRDSO, MED) \ldots\ldots \; 2$$

B. **Voluntary Disclosures:** The following models have been developed voluntary disclosures:
   - To estimate the influence of the internal factors:

$$VDI \; = \; f \; (SIZE, PRT\; CFO, INSDR, INT) \ldots\ldots \; 3$$

   - To estimate the influence of the external factors:

$$VDI \; = \; f \; (BSEC, AWRD, TXAT, EXSH, TRDSO, MED) \ldots\ldots\ldots \; 4$$

4.8 Testing the Assumptions of OLS Method

Regression coefficients of the models can be estimated in a number of ways. OLS method is considered to be a powerful and popular method of regression analysis especially when the model contains both continuous and dummy variables (Akhtaruddin, 2005; Das, 2015; Haniffa & Cooke, 2002; Hutaibat et al., 2011). This study has used Ordinary Least Square (OLS) method of linear regression.

There are controversies among the researchers about the number of sample for each variable to be studied in linear regression model. By using a Monte Carlo simulations, Austin and Steyerberg (2015) have proved that linear regression model require only two samples per variable for adequate estimation of regression coefficient using ordinary least square method.

OLS is a parametric test and requires several assumptions to be met by the data:

i. Linearity: The assumption is that dependent variable can be computed as a linear function of a particular set of independent variables plus an error term.In order to test this assumption, a standardized residuals plot can be used against the standardized predicted values. Ramsey's RESET Test can also be used to identify any non-linearity in the regression model by detecting whether there is any omitted variable. The test assumes a null hypothesis that there is a linear relationship in the regression model and rejection of the null hypothesis refers nonlinearity (Gujarati; Heij et al.; Verbeek, as cited in Mokhtar, 2010). However, in the literature of disclosure non-linearity is a very common issue (Cooke, as cited in Das, 2015).

ii. No multicollinearity: If there is a high level of inter correlation among the explanatory variables a multicollinearity problem arises. It refers that estimates are unbiased but measurement of the relative strength of each explanatory variable and their combined effect are unreliable. It can be checked by correlation coefficient and as a rule of thumb, intercorrelation among the independent variables above 0.80 indicates a potential problem of multicollinearity in the data. As a robust check for the problem, the variance inflation factor (VIF) with tolerance coefficient is used. Many researchers opine that the VIF for a specific explanatory variable should be below 5 to prove absence of collinearity for that variable (Elsayed, 2008). Some researchers suggest that the value of VIF should be 10 (Gujarati; Gaur & Gaur, as cited in Das, 2015). However, as a rule of thumb the tolerance value more than 0.20 is acceptable for claiming nonexistence of the problem of multicollinearity in data (Elsayed, 2008; Hair et al., as cited in Das, 2015).

iii. Independence of error: The values of the errors should be independent, which means that all observations are taken from a random sample and individual data points are independent from one another. Researchers generally use the Durbin-

Watson statistic in order to test this assumption. The value of this statistic ranges from '0' to '4'.As a rule of thumb, a value close to '2' is accepted. Values below '1' and above '3' refer that the assumption is not met.

iv. Normality of error: Another assumption is that the values of the errors are normally distributed with constant mean, 0, and constant variance, σ^2.A normal probability plot can be used to test this assumption. If most of the dots lie close to the diagonal line, the data set is considered to be more normal. The closer the dots lie to the line, the closer to normal the errors are distributed. Shapiro –Wilk W test and Kolmogorov– Smirnov D test are two popular numerical methods to test the normality of data. Generally, for tests on samples '3' to '2000', researchers use Shapiro Wilk test and for sample size of more than '2000' researchers use Kolmogorov-Smirnov test. According to these tests, if the p value is small (less than .05), then the data is not considered as normally distributed.

v. Homoscedasticity: The assumption of homoscedasticity tells that the error term has the same variance (σ^2) in each observation. To test the validity of this assumption, researchers need to produce a special scatterplot that includes the whole model (and not just the individual predictors) i.e. the residual plot. In this plot standardized values of predictions are plotted against the standardized residuals obtained. If the graph looks like a random array of dots the assumption of homoscedasticity is accepted but if it takes the shape of a funnel then the assumption is considered to be violated. There are some numerical methods in STATA for homoscedasticity test; Cameron & Trivedi's decomposition of IM test and Breusch-Pagan / Cook-Weisberg and White's tests. The rejection of the null hypothesis in these tests indicates a violation of the assumption of homoscedasticity.

4.9 Reduced Models

Use of reduced model by including the significant variables is familiar in the disclosure literature (Elsayed, 2008; Haniffa & Cooke, 2002). A common goal in multiple regression analysis is to identify the most influencing independent variables. In order to select the "best" subset of variables, unnecessary predictors are removed. The purposeis to identify the equation with the least number of variables which can explain the variance in the dependent variable that is comparable to the variance explained by the equation with all the variables. It will also help to avoid noise in the model and save time and/or money. Often, the variable selection process is a mixture of statistics, theory, and practical knowledge.

In this regard, many researchers have used stepwise regression which is an automated model selection procedures (Elsayed, 2008; Pham, 2012). This can be easily done by using statistical software like SAS, SPSS, etc. Backward elimination is a form of stepwise method for regression. Backward elimination procedure is considered to be the simplest of all the variable selection procedures. From the set of available models, the best model is selected on the basis of some conditions, such as; the prediction performance (adjusted R^2) of the model should be the highest (or nearer) so that the original R^2 value does not decrease a lot, the standard error of estimation is the lowest (or nearer) and the predictors should have p-values less than αcrit. The αcrit is sometimes called the “p-to-remove” and may not always be 5%. Rather a 15-20% cut-off may work best for predicting the performance (“Chapter 10 Variable Selection”, n.d). Besides, residuals plots are an easy way that can help to make sure whether the researcher identifies the best model (Frost, n.d.).

In this study, there are two separate models for internal and external factors for each of the dependent variables (MDI and VDI). By using backward elimination method the reduced forms of these models have been identified. Regression analysis has been conducted for the reduced models to recognize the significant factors. Further regression analysis has been done for understanding the combined effect of the significant internal and external factors. This process would help to detect the most vital determinants of disclosures for the study.

4.10 Data Transformation

Some researchers opine that parametric-tests can be run if there is a violation of normality. When a regression model is not normally distributed, the researcher can recreate it by transforming the variables. If the new model (after transforming the variables) is normally distributed, it can be used in the analysis. Data transformation is popular in the literature of disclosures (Elsayed, 2008; Haniffa & Cooke, 2002;

Mokhtar, 2010; Umoren, 2008). Pek, Wong, and Wong (2018) evaluated sixty one newly published textbooks on introductory statistics and the linear model for undergraduate and graduate level. They found that in graduate textbooks data transformation has been suggested mostly (89%) as an approach for treating non-normality.

Previous researchers have used different types of methods for data transformation in different situation. Generally, it is being recommended to transform the dependent variable when nonnormality is the main problem in the model. In doing so use of log transformation is one of the popular and useful methods of data transformation. Another approach to solve non normality of data is transforming the rank of the dependent and continuous independent variables. Many previous accounting researchers have used it in their studies (Aly, Simon, & Hussainey, 2010; Haniffa & Cooke, 2002; Hutaibat et al., 2011; Lang & Lundholm, 1993). Lang and Lundholm (1993) suggest the application of OLS regression technique to the ranks of independent variables which are ordered and ranked from smallest to largest. Rank transformation adds assurance to the statistical results as it provides distribution-free data, gives similar results like ordinal transformation and reduces the influence of measurement errors, outliers and heteroscedasticity (Wallace et al., as cited in Umoren, 2008). However, rank regression method has some drawbacks also, including difficulties in interpreting the regression coefficients and testing their significance, employing *F*-test and *t*-test etc (Cooke, as cited in Mokhtar, 2010).

An extension of the rank regression is the use of normal scores as used by Cooke(as cited in Haniffa & Cooke, 2002).Here actual observations are transformed to the equivalent values of normal distribution. After that the OLS regression is used with the normal scores. This method is known as the Van Der Waerden approach. The normal scores approach has some advantages in addition to those of rank regression technique such as; by using normal scores meaningful regression coefficients and the significance level can be computed and the F-test and t-test could be used (Haniffa & Cooke, 2002). Besides, this approach avoids the problem of biased estimates of using the censored nature of the dependent variable. Normal score transformation guides to a nearly normal shape for the majority of variables. In SPSS, there are various types of method of using normal score. By using Monte Carlo simulations, Solomon and

Sawilowsky (2009) show that Rankit approach of transformation provides the best result among all the rank based normalizing transformation methods. This method has also been recommended by Bishara and Hittner (2012) when correlating data that is asymmetric or heavy tailed.

In the present study, the descriptive statistics show that data set of MDI (Mandatory Disclosure Index) has a negative skewness, which threatens the normality of the models having MDI as the dependent variable. Therefore the OLS analysis has been extended in those models by using the normal score of MDI (dependent variable) like the previous research ((Haniffa & Cooke; Ghazali & Weetman; Amran et al., as cited in Mokhtar, 2010).).The MDI (dependent variable) has been transformed by using Rankit approach for further analysis.

4.11 Relation between VDI and MDI

The research question regarding relationship between voluntary disclosure and mandatory disclosure of listed manufacturing companies in the DSE is primarily approached by employing Pearson correlation tests. The present study expects that level of voluntary disclosures is positively affected by the level of mandatory disclosures. A multiple regression analysis has been performed in order to investigate the association between voluntary disclosure (dependent variable) and mandatory disclosure (independent variables).

4.12 Instruments for Data Analysis

In order to examine these data a variety of quantitative analysis techniques under the Microsoft Excel, SPSS 16 and STATA 14 software has been utilized.

4.13Summary

Chapter four presents a description of the research method applied in this study. It provides details about the population and sample of the study, data collection procedure, measurement of variables and data analysis method. Both qualitative and quantitative methods have been used to understand the nature of disclosures and influence of different factors on disclosures. Qualitative data has been collected through face to face interview with ten experts in the relevant field. The participants' opinion has been accumulated about potential factors that may influence the disclosure practice of the listed manufacturing companies in Bangladesh. Quantitative data has been gathered from primary and secondary sources. Primary data is collected from a questionnaire survey of the persons related to making annual reports of the sample companies. The survey sample consists of fifty companies representing thirty five percent of the population. This questionnaire survey is done mainly to gather knowledge about the perceived influence of external factors on disclosures. A content analysis of annual reports of the sample companies is conducted for collecting data about the level of disclosures and internal attributes of the companies. The quantitative analysis includes descriptive statistics, correlation analysis and multiple regression analysis. An attempt has been made to discover the relation between mandatory and voluntary disclosures by using regression analysis. Association between both types of disclosures and the influencing factors has been analyzed by separate multiple regression models.

CHAPTER FIVE

DATA PRESENTATION AND ANALYSIS

5.0Introduction

This chapter presents and analyses the data in two parts. The first part aims to provide answers to the first two research questions (RQ1: What is the extent of mandatory disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)? RQ 2: What is the extent of voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?). To obtain answers of these questions content analysis of the annual reports has been made by using two separate checklists for mandatory and voluntary disclosures. The whole process of content analysis has been described in chapter four (Section 4.3.5.3, Section 4.4.1 and Section 4.4.2). In the second part of the present chapter answers the third (RQ3: Is there any association between the mandatory disclosures and voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?) and fourth research question (RQ4: What are the factors that influence the disclosure of mandatory and voluntary information in the annual reports of listed manufacturing companies in Dhaka Stock Exchange (DSE)?). Section 5.1describes the nature and status of extent of mandatory and voluntary disclosures, section 5.2 provides the discussion on determinants of disclosures. Section 5.3 provides a summary to the chapter.

5.1Extent of Disclosures

This part of the chapter provides explanation on the level of both types of disclosures.

5.1.1 Descriptive Statistics of Disclosures

Table 5.1 shows several descriptive statistics of the mandatory and voluntary disclosure indices. Mandatory Disclosure Index (MDI) has a mean value of 75.12%

and a standard deviation of 6.29%. This result is improved than the study of Akhtaruddin, 2005 and Das, 2015. The table also reveals a narrow range of mandatory information disclosure that varies from 55% to 87%. It can be assumed that the enhanced monitoring and supervision by the BSEC for compliance has improved the disclosure scenario.

Table 5.1: Descriptive Statistics of Disclosures

	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
MDI	.32	.55	.87	.7512	.0629	-.749	1.289
VDI	.78	.04	.82	.3918	.224	.156	-1.049

The table also shows that the Voluntary Disclosure Index (VDI) has a mean value of 39.18%. This refers a low level of voluntary disclosures by the companies under this study. This result is quite similar to the previous studies of Das, 2015; Nurunnabi and Hossain, 2012. The table shows that range of the extent of voluntary disclosures is quite wide with a minimum disclosure score is 4% and maximum score is 82%.There is a high dispersion (standard deviation 22.42%) of voluntary disclosures among the companies under study.

5.1.2 Level of Mandatory Disclosures

The level and status of mandatory disclosures in annual reports of companies under this study have been discussed in the following paragraphs.

5.1.2.1 Category wise Mandatory Disclosure Performance

Table 5.2 depicts different categories of mandatory information in annual reports of companies under study. It can be observed that average disclosure level by the sample companies is the highest (almost 100%) for statement of changes in equity, followed by statement of profit or loss, statement of financial position and cash flow statement. It is noticeable that companies are complying almost 90% or above with the items to be shown in the face of all the four statements, but in explanatory notes they are not disclosing the detailed information fully (mean value 68.4%). Companies don’t fully comply with other vary two important items, general corporate information and director's report. It is remarkable that no company disclose all the mandatory information as per the extensive list used in this study. Among all the categories of mandatory disclosure the lowest rate is 0% for the ratio analysis part (referring that at least one of the companies fail to disclose any item of mandatory ratio analysis), followed by accounting policy (3.23%) and director's report (4%).

Table 5.2: Descriptive Statistics for Mandatory Disclosure and its Categories

Disclosure Items	Mean	Minimum	Maximum	Std. Deviation
1. Total Mandatory Disclosures Index (MDI)	.7512	.55	.87	.063
2. General Information	.7613	.25	.94	.124
3. Statement of Financial Position	.9605	.82	1.0	.036
4. Statement of Profit or Loss and Other Comprehensive Income	.9782	.91	1.0	.037
5. Statement of Changes in Equity	.9950	.75	1.0	.035
6. Accounting Policies	.8154	.03	.97	.142
7. Director's Report	.8552	.04	1.0	.160
8. Cash Flow Statement	.8920	.80	.90	.027
9. Other Explanatory Notes	.6844	.51	.85	.084
10. Ratio Analysis	.2657	.00	.93	.273

5.1.2.2 Company wise Mandatory Disclosure Performance

Table 5.3 shows different levels of mandatory disclosure for the sample companies. It reveals that only 2% (1 out of 50 companies) discloses more than 86% of the items included in the checklist. Half of the companies (50%) scored between 76% and 85%, which is also more than the average disclosure score (75.12%). The average disclosure level for 38% of the total companies (19 out of 50) lies between 66% and 75 %; whereas only 10 % (5 out of 50) of the companies scores 65 percent or less.

5.1.2.3 Sector wise Mandatory Disclosure Performance

Sector wise disclosure performance is necessary to be examined in order to identify disclosure performance among the sectors of companies. From the table 5.4 it can be observed that among the nine sectors, cement sector has the highest average (79%) of mandatory disclosures followed by food & allied products sector and engineering sector (77%). Other five sectors, pharmaceuticals & chemicals, ceramic, miscellaneous and textile sectors have a mean of more than 70% mandatory information. The tannery sector and the jute sector disclose the lowest disclosure (with a mean of 70% and 69% respectively) of mandatory information.

Table 5.3: No. of Companies at Different Disclosure Level

Mandatory Disclosure Level (%)	Total Companies
Upto 55	01
56-65	04
66-75	19
76-85	25
86 -95	01
Total	50

Table 5.4: Sector wise Mandatory Disclosure Level

Sector	Mandatory Disclosures (%)
Cement	79
Engineering	77
Food & Allied Products	77
Pharmaceuticals & Chemical	76
Ceramic	75
Miscellaneous	74
Textile	72
Tannery	70
Jute	69

5.1.2.4 Mandatory Disclosure Performance by Company Attributes

The descriptive statistics of two company attributes, sales and profit has been presented in table 5.5. It can be observed that dispersion among companies in relation to sales is very high (standard deviation is). The mean of sales and profit are 99.38 and 6.74 with standard deviation of 291.81 and 5.03 respectively.

Table 5.5: Descriptive Statistics for Company Attributes

Company Attributes	Minimum	Maximum	Mean	Std. Deviation
Total sales revenue (in Tk. 100million)	1.07	2041.40	99.38	291.81
Profit (ROA %)	.29	22.68	6.74	5.03

i. Size and Mandatory Disclosure Performance: The disclosure levels (as per the list used in this study) at different size of company (measured by actual annual sales revenue) are shown in table 5.6. There is huge dispersion among the companies in terms of sales. The average sales amount is Tk. 99.38 hundred million and only ten companies have their sales more than average. Only one company (2% of total sample) that shows the highest level (86% or more)of information is from the lower sales group (below average sales amount).

Table 5.6: Mandatory Disclosure Performance by Size

Mandatory Disclosure Level (%)	Size (sales in 100 million Taka)										
	Upto5	More than 5- upto 10	More than 10- upto 20	More than 20- upto 40	More than 40- upto 80	More than 80- upto 160	More than 160- upto 320	More than 320- upto 640	More than 640- upto 1280	More than 1280- upto 2560	Total
Upto 55				1							1
56-65	1		1	1		1					4
66-75	1	5	5	2	2	2	1	1			19
76-85		4	4	4	4	6	1	1		1	25
86 and above			1								1
Total	2	9	11	8	6	9	2	2	-	1	50

It can be seen that twenty five (50% of the sample) companies discloses mandatory information at the level of 76%-85%. Among them most of the companies (16 out of 25) are from lower sales group. i.e., their sales amount is up to Tk. 80 hundred million which is below the average 99.38 hundred million taka. Other nineteen (38%) of the companies' disclosure score is at 66% -75% level. At this level, most of the companies represent lower sales group. Out of the total sample, 10% (5 out 50) companies discloses 65% or less mandatory information among them companies with lower sales group are more in number.

ii. Profitability and Mandatory Disclosure Performance:

In order to show the relation between profitability and mandatory disclosures, companies have been classified according to their Return on Assets (ROA) in table 5.7.The average of profitability (ROA) of the sample companies is 6.74%. Return on Investment (ROA) of the only company showing the highest disclosure score (86% and above) is 4.12% which is below the average ROA. Out of the twenty five companies showing 76% to 85% mandatory disclosures, eleven companies have ROA near average (4% to 8%). Eight companies from this group have low profitability rate (up to 4% which is below average).

Table 5.7: Mandatory Disclosure Performance by Profitability

Mandatory Disclosure Level (%)	Return on Assets (%)					
	Upto2	More than 2- upto 4	More than 4- upto 8	More than 8- upto 16	More than16- upto 32	Total
Up to 55			1			1
56-65	1		1	2		4
66-75	4	6	1	5	3	19
76-85	1	7	11	5	1	25
86 and above			1			1
Total	6	13	15	12	4	50

Out of the total sample, nineteen companies are disclosing mandatory information at 66% to 75% level. At this level, only eight companies represent the higher profitability group (having ROA more than average rate).Out of the five companies showing relatively lower disclosure score (65% or less), two are from higher profitable group (ROA more than 8% to 16%).It can be found from the table that only four companies are in the highest profitable group (more than 16% upto 32%) and they show mandatory disclosures within 66% to 85% level. However no clear indication of the relation between profitability and mandatory disclosures can be drawn from the above table.

5.1.3 Level of Voluntary Disclosures

The present study requires exploring the level and status of voluntary disclosures in the annual reports of listed manufacturing companies in Bangladesh.

5.1.3.1 Category wise Voluntary Disclosure Performance

Table 5.8 represents descriptive statistics of different categories of voluntary disclosures according to the list used in this study. The maximum disclosure score for most of the categories is 100%. This means that at least one of the sample companies showed all the items of that individual category.

Table 5.8 Descriptive Statistics for Voluntary Disclosure and its Categories

Disclosure Items	Mean	Minimum	Maximum	Std. Deviation
1.Voluntary Disclosure Index	.3918	.04	.82	.224
2. General Information (voluntary)	.5775	.125	1.00	.264
3. Environment	.3200	.000	1.00	.354
4. Human Resources	.3950	.000	.917	.260
5. Products	.5200	.000	1.00	.327
6. Community Involvement	.4514	.000	1.00	.390
7. Graphs, charts, pictorial Data	.3640	.000	1.00	.315
8. Value Added statement	.4733	.000	1.00	.499

On the other hand, minimum disclosure for most of the categories of disclosure is 0%, which means that at least one company doesn’t show any of the items of that individual category. The general corporate information category represents the highest disclosure level of 57.75%, while environmental information shows the lowest level of 32%.

5.1.3.2 Company wise Voluntary Disclosure Performance

Table 5.9 shows different voluntary disclosure levels of the sample companies. The table reveals that most (74%) of the companies disclose 55% or less of the total items from the list used in this study. A good portion of the companies (10 out of 50) show only 15 % or less of the voluntary items from the list used in this study. Only 8 per cent (4 out of 50) companies obtain the highest score for voluntary disclosures (76 % to 85%).

Table 5.9: Company wise Voluntary Disclosure Level

Voluntary Disclosure Level (%)	Total Companies
Upto 5	2
6-15	8
16-25	5
26-35	9
36-45	7
46-55	6
56-65	5
66-75	4
76-85	4
Total	50

5.1.3.3 Sector wise Voluntary Disclosure Performance

Table 5.10 exhibits the sector wise voluntary disclosure level for the companies.

Table 5.10: Sector wise Voluntary Disclosure Performance

Sector	Voluntary Disclosures (%)
Ceramic	61
Pharmaceuticals & Chemicals	50
Food & Allied Products	44
Textile	41
Cement	38
Engineering	35
Miscellaneous	27
Tannery	23
Jute	8

Among the nine sectors covered in this study, ceramic sector shows the highest level (61%) of voluntary disclosures, followed by the pharmaceuticals & chemicals sector (50%). Jute sector discloses the lowest voluntary information with only a mean of 8% followed by the tannery sector (23%). It is noticeable that these two sectors also have the lowest mandatory disclosure mean also.

5.1.3.4 Voluntary Disclosure Performance by Company Attributes

The following table 5.11 shows the descriptive statistics of company attributes.

Table 5.11: Descriptive Statistics of Company Attributes

Company Attributes	Minimum	Maximum	Mean	Std. Deviation
Total sales revenue (in Tk. 100million)	1.07	2041.40	99.38	291.81
Profit (ROA %)	.29	22.68	6.74	5.03

i. Size and Voluntary Disclosure Performance: The relation between size (measured by actual sales in taka) and disclosure level of the sample companies is shown in table 5.12.

Table 5.12: Voluntary Disclosure Performance by Company Size

Voluntary Disclosure Level (%)	Sales (Taka in100 million)										
	Upto 5	More than 5- upto 10	More than 10- upto 20	More than 20- upto 40	More than 40- upto 80	More than 80- upto 160	More than 160- upto 320	More than 320- upto 640	More than 640- upto 1280	More than 1280- upto 2560	Total
Upto 5		2									2
6-15	1	2	4			1					8
16-25	1	2		1		1					5
26-35		1	3	4		1					9
36-45			1		2	2	2				7
46-55			2	2	1	1					6
56-65			1	1	1	1		1			5
66-75					2	1		1			4
76-85		2				1				1	4
Total	2	9	11	8	6	9	2	2		1	50

Only four companies disclose the highest level (76% to 85%) of voluntary information, out of which only one company represent the higher sales group (more than average sales of Tk. 99.38 hundred million). Other four (8%) of the total companies' score of voluntary disclosure is at 66% to 75%. At this level, two companies are from lower sales group (having annual sales less than average 99.38 hundred million taka). Apart from this, eleven companies are showing voluntary disclosure within 46% to 65% level, out of which eight companies (around 73%) are from lower sales groups. Thirty one companies' (62% of total sample) score for voluntary disclosures is very disappointing (less than 45% of the list used in this study; most (around 77%) of these companies have annual sales less than the average sales of the sample companies.

ii. Profitability and Voluntary Disclosure Performance:

The relation between profitability and voluntary disclosure level has been shown in table 5.13 by classifying the companies according to their Return on Assets (ROA). From the table it can be observed that four companies are earning the highest profit (having ROA more than 16% to 32%) in this study and their voluntary disclosure score lies within 16% to 75%. Nine out of the twelve companies having ROA more than 8% up to 16% discloses 55% or less items of voluntary information from the list. Companies earning medium rate of profit (more than 4% to 8%) don't cluster any specific group of the disclosure level. But most (ten out fifteen) of the companies of this group shows 55 % or less items. Fourteen out of the nineteen companies from lower profitable group (earning 4% or below ROA) show a very poor (45% or less) level of voluntary disclosures.

Table 5.13: Voluntary Disclosure Performance by Profitability

Voluntary Disclosure Level (%)	**Return on Assets (%)**					
	Upto2	More than 2-upto 4	More than 4-upto 8	More than 8-upto 16	More than16-upto 32	Total
Upto 5	1	1				2
6-15	3	2	1	2		8
16-25	1	1	1	1	1	5
26-35	1	3	3	2		9
36-45		1	2	3	1	7
46-55		2	3	1		6
56-65		1	1	2	1	5
66-75		1	2	1		4
76-85		1	2		1	4
Total	6	13	15	12	4	50

5.2 Determinants of Disclosures

This part of the present chapter depicts the qualitative and quantitative analysis regarding the determinants of disclosures.

5.2.1 Qualitative Analysis –Discussion of the Interview

A face to face interview was conducted with some persons having expert knowledge on disclosure practice of companies in Bangladesh. The process of collecting data through the interview has been discussed in chapter four. The researcher conducted a semi structured interview by being present at the office of the interviewees. The main objective of the interview was to gain knowledge about the reporting status and the important factors influencing disclosure practice of listed manufacturing companies in Bangladesh. The present researcher has provided the interviewee list of some factors as identified from the literature seem to be relevant to the disclosure practice of listed manufacturing companies in Bangladesh. The participants were requested to comment whether these factors are relevant and to mention any other factor they may think to be important but not included in the list. In the following paragraphs the summary of the interview discussions is presented. In order to maintain confidentiality, the respondents are referred in the discussion by code numbers.

All the interviewees agreed that listed manufacturing companies in Bangladesh are neither disclosing with full compliance to the regulatory requirements, nor they are providing a satisfactory level of voluntary information. The participants generally opine that companies try to publish only the minimum requirements according to the existing regulatory systems but are reluctant to provide additional information. Response of one interviewee represents perfectly this statement:

> There are low motivations for disclosures among the listed companies. They merely try to disclose only the minimum possible disclosures as per the regulations. For voluntary disclosures, many companies find that costs of reporting are higher than the related benefits. If someone could convince the corporate world that they would be more benefitted for providing corporate social and environmental information; disclosure level may be improved. [Interviewee: 2]

All the persons interviewed opined that weak legal systems and lack of enforcement of existing laws are the major causes of low level disclosure by the companies. All the interviewees consented that monitoring and supervision by the BSEC and the ICAB is not adequate for checking the compliance by all the companies.

> The BSEC doesn't have enough digitalized system. Sometimes it doesn't get the timely information about listed companies' whether they are following or not properly. But, since the 2012 the BSEC is becoming more active now. [Interviewee: 6]

> The BSEC does not have enough resource persons to monitor the reporting environment. [Interviewee: 2]

> Audit firms' practices must be transparent. The ICAB should monitor, impose penalties or take other measures. [Interviewee: 2]

A major problem in the reporting system in Bangladesh is the ambiguities among existing disclosure regulations. Provisions for disclosure in the Companies' Act, 1994 is not clear and updated. On the other side, IFRSs includes some issues which are not suitable in our country's context. Typical responses include:

> There are huge inconsistencies among different regulations like Companies' Act and IAS. For example I can mention the accounting treatment of borrowing costs; it is different in both the regulations. [Interviewee: 4]

> Provisions of Companies' Act are not clear about disclosures. [Interviewee: 2]

It is hopeful that all the interviewees agreed that recently the regulatory bodies are creating more pressure on the listed companies for better disclosure practices. The following responses represent the statement:

> The main mandatory regulations include Companies Act, BSEC regulations and BSEC directives. The BSEC Public Issue Rules, 2015 prescribes the summary of regulations for preparing financial statements. The Corporate Governance and Financial Reports Compliance department of the BSEC checks the annual reports. At present the BSEC is becoming stricter to impose punishment for

> noncompliance. The ICAB is also imposing punishment according to the direction of the BSEC. [Interviewee: 3]

> The ICAB is a regulatory body within the audit profession. The ICAB considers into account if there is any complain about disclosures from any user or the BSEC or the NBR or the DSE or even if the ICAB itself gets any irregularities from the routine firm inspections. The Quality Assurance Board (QAB) and the Investigation and Disciplinary Committee (IDC) take necessary measurements to investigate about the issue. If the complain is proved, the ICAB imposes fine or may cancel the registration of the firm (in severe cases). [Interviewee: 4]

All the interviewees agreed that the practice of the professional bodies for providing awards for best disclosure motivates the improved reporting practice. One representative response includes:

> Companies are motivated to improve their reporting practices in order to get the awards because they think it may create a good corporate image in the market. [Interviewee: 8]

The tax authorities, the NBR are not playing an effective role in improving the disclosure practice. The following response reflects the statement:

> As there is a lack of knowledge among the tax authorities about the IASs/IFRSs; noncompliance to disclosures in the financial statements is easily occurred. In some cases the company CFO omits or misleads information about the deferred tax, contingent liabilities, computation of financial lease and operating lease, valuation of investment etc. [Interviewee: 6]

All the participants agreed that there is a lack of awareness about the necessity of proper disclosure among the top management of most of the listed companies. Some responses are as follow:

> In many companies, decisions are not based on actual condition; rather decisions are taken by entrepreneurs who are not well educated. They are mainly businessmen having profit motive. They want that the annual reports should present a good image of their companies whatever the real picture is. [Interviewee: 5]

> Entrepreneurs are not aware about the use of management information system in decision making; they are also uneducated and inexperienced about this. [Interviewee: 10]

Generally the company management is reluctant to disclose detailed information about their activities due to a perceived risk of increased competition. Responses representing the statement include:

> One cause for low disclosure is that the company management thinks if the company publishes its information in details, competitors will come to know everything about their company. [Interviewee: 2]

> We mostly comply with all the requirements for disclosure. But we do not disclose some information. We are the only public limited company in this line of business, disclosing all the information will increase the risk of competition. [Interviewee: 1]

Some of the interviewees mentioned that cost of reporting and size of the company is an important factor. Reporting system may be improved if the companies maintain a computerized and modern integrated accounting and reporting system. But in real world; few firms introduce the digitalized system. Representative comments include:

> In many companies, cost of reporting is relatively higher than the related benefits. In big companies they may have improved and robust reporting system for their internal management control and decision making purpose. But in small companies they do not have good reporting system and cost of publishing annual reports becomes a burden for them. [Interviewee: 2]

> There is a lack of automated accounting system and robust internal control system among the listed companies. Companies could reduce cost of reporting by developing automated accounting system. Cost of reporting influences disclosure practice. [Interviewee: 10]

Most of the participants commonly admitted that there is lack of qualified persons as the CFO in the listed companies in Bangladesh. Supply of qualified chartered accountants is less than the demand. On the other hand some companies do not want to appoint qualified persons as the CFO to avoid paying high remuneration. So it is expected that the disclosure practice may not be up to the standard. Following statements may reflect the situation well:

> Many of the companies are not willing to appoint professionals as CFO to save cost, as professionally qualified CFO should be paid higher than non qualified CFO. [Interviewee: 4]

> Disclosure in annual reports depends on the quality of the CFO, but professionals are not available in corporate world. [Interviewee: 10]

Almost all the respondents admitted that external shareholders (especially the individual shareholders) in our country are generally unaware about the information disclosed in annual reports. They focus on some specific information to make investment decision. So it is usual that the companies would not provide detailed information about their activities in the annual reports. One of the responses representing the above statement is as follows:

> Most of the investors in Bangladesh are unaware about disclosures and have lack of knowledge. They only look at some specific information in the annual reports including name of the members of the board, members of the management committee, history of dividend, etc. [Interviewee: 2]

It has been understood from the interview that now-a- days some shareholders are coming up in the stock market with proper knowledge about annual report disclosure, some shareholders ask relevant questions in the annual general meeting. Some of the external shareholders join the annual general meeting in groups and try to argue with the management of the publisher companies about the information. So the listed manufacturing companies are getting pressure from the shareholders for providing relevant and reliable information in the annual reports.

Most of the interviewee think that industry practice of companies also have role in disclosure practice. Companies follow other companies in the same industry while publishing their annual reports. One interviewee expressed his opinion by saying:

> Industry practice is important in disclosure of information in the annual reports because each industry (e.g.: pharmaceuticals; textile) has its own separate nature of operation and information. [Interviewee: 3]

Most of the interviewee opined that the media (especially the online media) are very concerned about the disclosure practice of the listed companies. The publisher companies remain aware about what news is spreading to the public about their operation through the media. The following response represents the statement:

> Now-a-days media, especially the online one, is acting as a very powerful factor in the reporting environment of the capital markets in Bangladesh. [Interviewee: 3]

Most of the interviewees mention that trade associations may influence the listed manufacturing companies. Table 5.14 shows the major factors identified from the interview.

Table 5.14: Major Factors affecting the Disclosure Practice of Listed Companies in Bangladesh

Factors	Frequency
Regulatory bodies (mainly the BSEC)	10
Professional bodies(mainly the ICAB)	10
External Shareholders	10
Media	9
Trade association (may influence)	8
Cost of reporting/size	5
Qualification of CFO	10
Managements' attitude	10
Profitability	4

Note. Face to face interview with the Experts.

5.2.2 Quantitative Analysis - Bivariate Analysis

Quantitative analysis is based on data collected from content analysis and questionnaire survey. Questionnaire data have been presented in Appendix 5.1. In this section correlation between dependent variables (Mandatory Disclosure Index or MDI and Voluntary Disclosure Index or VDI) with independent variables are discussed. Inter correlation among the independent variables under this study are provided in Appendix 5.2.

5.2.2.1 Correlation between Mandatory and Voluntary Disclosure: The present study assumes a positive relation between mandatory and voluntary disclosure. It can be observed that both types of disclosure are strongly and positively correlated with each other (Pearson's coefficient .512at 1% significance level).

5.2.2.2 Correlation of Mandatory Disclosures with Independent Variables: This section examines correlation between mandatory disclosures with independent variables (internal and external factors). Table 5.15 reveals that there is a significant positive correlation of qualification of accountants (variable CFO) and a significant negative correlation profit (variable PRT) with mandatory disclosure at 5% level. Two variables SIZE and BSEC are positively correlated (at 10% significance level) with mandatory disclosure. There is a negative correlation between trade association (variable TRDSO) and the mandatory disclosure at 10% level of significance.

Table 5.15: Correlation between Mandatory Disclosures and Independent Variables

Variables		**Pearson (one tailed test)**
Internal	SIZE	.188*
	PRT	-.257**.
	CFO	251**
	INSDR	.169
	INT	.206
External	BSEC	.227*
	AWRD	.175
	TXAT	-.154
	EXSH	.079
	TRDSO	-.223*
	MED	-.157

*Correlation is significant at 10%; Correlation is significant at ** 5%; ***Correlation is significant at 1%

5.2.2.3 Correlation of Voluntary Disclosures with Independent Variables:

This section examines correlation between the extent of voluntary disclosures and the independent variables. In table 5.16 the Pearson's correlation coefficients show that among the internal factors, size of the company (variable SIZE) has significant positive relationship (at 1% significance level). Among the external factors, regulatory body (variable BSEC), external shareholders (variable EXSH) and professional bodies (variable AWRD) have significant positive relationship with voluntary disclosure (at 10%, 5% and 1% significance level respectively) with voluntary disclosure.

Table 5.16: Correlation between Voluntary Disclosures and Independent Variables

Variables		Pearson (one tailed)
Internal	SIZE	.533***
	CFO	.133
	PRT	.166
	INSDR	-.042
	INT	.153
External	BSEC	.192*
	AWRD	.387***
	TXAT	.110
	EXSH	.250**
	TRDSO	.045
	MED	.172

*Correlation is significant at 10%, ** Correlation significant at 5%; ***Correlation is significant at 1%

5.2.3 Quantitative Analysis -Multiple Regression Analysis

The hypotheses of this study have been tested by using multiple regression analysisfordata collected from content analysis and the questionnaire survey.

5.2.3.1 Regression Models

Separate multiple regression analysis has been done for the four models used in this study.In so doing, Ordinary Least Square (OLS) has been utilized, for each of the methods. Assuming a linear relationship between the variables, primarily the following equations of the four models have been developed:

1. To estimate the influence of internal factors (company attributes) on mandatory disclosure level:

$$MDI = \boldsymbol{\beta_0} + \boldsymbol{\beta_1} SIZE + \boldsymbol{\beta_2} CFO + \boldsymbol{\beta_3}\, PRT + \boldsymbol{\beta_4}\, INSDR + \boldsymbol{\beta_5} INT + \varepsilon j \ \ldots\ldots\ldots. (\mathbf{1})$$

2. To estimate the influence of the external factors on mandatory disclosure level:

$$MDI = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\, BSEC + \boldsymbol{\beta_2}\, AWRD + \boldsymbol{\beta_3} TXAT + \boldsymbol{\beta_4} EXSH + \boldsymbol{\beta_5} TRDSO + \boldsymbol{\beta_6} MED + \varepsilon\, j \ldots\ldots (\mathbf{2})$$

3. To estimate the influence ofinternal factors (company attributes) on voluntary disclosure level:

$$VDI = \boldsymbol{\beta_0} + \boldsymbol{\beta_1} SIZE + \boldsymbol{\beta_2} CFO + \boldsymbol{\beta_3}\, PRT + \boldsymbol{\beta_4}\, INSDR + \boldsymbol{\beta_5} INT + \varepsilon j \ \ldots\ldots (\mathbf{3})$$

4. To estimate the association of voluntary disclosure level with the external factors:

$$VDI = \boldsymbol{\beta_0} + \boldsymbol{\beta_1} BSEC + \boldsymbol{\beta_2} AWRD + \boldsymbol{\beta_3} TXAT + \boldsymbol{\beta_4}\, EXSH + \boldsymbol{\beta_4} TRDSO + \boldsymbol{\beta_6} MED + \varepsilon j \ldots\ldots (\mathbf{4})$$

Where, β_0	regression intercept
β_i	Coefficients for the ith variable (expecting to have positive values for all independent variables except PRT and INSDR)
ε_j	difference between the predicted and observed value of dependent variables for jth no. of sample (the error term)

5.2.3.2 Test of Assumptions for Ordinary Least Square (OLS)

Before applying the OLS method, it is necessary to check the relevant assumptions. Results of the test of assumptions for the four regression models under the study are as follows:

(i) Linearity: From the standardized residual plots for the models can’t easily indicate the relationship between the independent variables with the dependent variables. So Ramsey’s RESET test has been used here. The null hypothesis of the RESET test says that the model is correctly specified. If the p value is greater than *F* statistic, at certain level of significance, the null hypothesis is rejected of correct specification. Table 5.17 indicates that at 5% significance level, we fail to reject the null hypothesis for all the models. Thus it can be said that the functional forms of all the four models are correct and the assumption of linearity is satisfied.

Table 5.17: Ramsey Test Results

Dependent Variables	**Independent Variables**	**Models**	**Ramsey RESET test**
MDI	Internal	Model 1	Prob > F =0.9754
	External	Model 2	Prob > F =0.7134
VDI	Internal	Model 3	Prob > F =0.7171
	External	Model 4	Prob > F =0.7552

ii) No Multicollinearity: Analysis of collinearity statistics in Table 5.18 show this assumption has been met for all the models of the study, as VIF scores are well below 10 and tolerance scores above 0.2. Also the correlation table among the independent variables supports the condition of no multicollinearity (Appendix5.2).

Table 5.18: Test Results for Multicollinearity

Models	Dependent Variables	Independent Variables	VIF Scores	Tolerance Scores
Model 1	MDI	SIZE	1.52	.660
		CFO	1.14	.880
		PRT	1.31	.762
		INSDR	1.12	.895
		INT	1.07	.937
Model 2	MDI	BSEC	1.207	.828
		AWRD	1.389	.720
		TXAT	1.533	.652
		EXSH	1.486	.673
		TRDSO	1.874	.534
		MED	1.987	.503
Model 3	VDI	SIZE	1.52	.660
		CFO	1.14	..880
		PRT	1.31	.762
		INSDR	1.12	.895
		INT	1.07	.937
Model 4	VDI	BSEC	1.288	.777
		AWRD	1.265	.791
		TXAT	1.654	.605
		EXSH	1.565	.639
		TRDSO	2.126	.470
		MED	1.944	.514

iii) The values of the errors are independent: Table 5.19 shows that all the four models under study have obtained the Durbin-Watson statistic values close to 2. So the assumption of the independence of residuals has been met for all the models.

Table 5.19: Test Results for Independence of Residuals

Dependent Variables	Independent Variables	Models	Durbin-Watson statistic
MDI	Internal	Model 1	1.87
	External	Model 2	1.88
VDI	Internal	Model 3	1.77
	External	Model 4	2.07

iv) Variance of the errors is constant: It is assumed that variance of the errors is homogeneous across the levels of predicted values. This assumption is also called as homoscedasticity. The residual versus fitted plot is a graphical method to assess this assumption. If the residuals plotted against the fitted values do not show any specific pattern, the model is assumed to be well-fitted. The plots in Appendix 5.3 show no obvious signs of funneling in any of the four models. The variance around zero is scattered uniformly and randomly. Thus it can be said that the assumption of linearity assumption and homoscedasticity is satisfied for the four models.

Table 5.20 presents the results of numerical tests for homoscedasticity. From the table it is shown that errors have constant variances (as Prob > chi2 is more than 0.05) under each of the three tests for all the models. Thus there is no sign of heteroscedasticity in any of the models.

Table 5.20: Test Results for Homoscedastcity

Dependent Variables	Models	White's test	Breusch-Pagan / Cook-Weisberg test	Cameron & Trivedi's Decomposition of IM test
MDI	Model 1	chi2(17)=8.92 Prob > chi2=0.9427	chi2(1) =1.12 Prob > chi2= 0.2908	chi2(17)=8.92 Prob > chi2=0.9427
	Model 2	chi2(27)=15.20 Prob > chi2=0.9665	chi2(1)=0.51 Prob > chi2= 0.4771	chi2(27)=15.20 Prob > chi2=0.9665
VDI	Model 3	chi2(17)=11.75 Prob > chi2=0.8151	chi2(1)=1.30 Prob > chi2= 0.2543	chi2(17)=11.75 Prob > chi2=0.8151
	Model 4	chi2(27)=30.63 Prob > chi2=0.2868	chi2(1)=1.04 Prob > chi2= 0.3071	chi2(27)=30.63 Prob > chi2=0.2868

v) The values of the errors are normally distributed: Table 5.21presents the results of Shapiro – Wilk W tests for the normality of errors for the models. The p value for Model 2 is less than 0.05, i.e. which indicates violation of normality of data. Also the Q-Q plots for the models suggest that the assumption of normality of the errors have not been fully satisfied in Model 2. Some observations in this model are far from the straight line (Appendix 5.4).

Table 5.21: Results of Shapiro-Wilk W test for Normal data

Models	Shapiro-Wilk Test
	Prob>z
Model 1	.128
Model 2	.010
Model 3	.241
Model 4	.904

5.2.3.3 Regression Analysis

The main aim of this study is to identify factors affecting disclosure of the DSE-listed manufacturing companies in Bangladesh. Separate regression equations have been developed for two separate dependent variables-Mandatory Disclosure Index (MDI) and Voluntary Disclosure Index (VDI) incorporating the internal factors and external factors in the equations. From the full form of the regression equations, the reduced forms (having the highest adjusted R^2) of equations have been identified. A stepwise (backward elimination) regression procedure is used to determine whether the explanatory power (R^2) of the regression equations have increased significantly at the 5% level of significance (Kmenta, as cited in Elsayed, 2008). From the set of available models, the best model is selected on the basis of some conditions, such as; the prediction performance (adjusted R^2) of the model should be the highest (or nearer) so that the original R^2value does not decrease a lot, the standard error of estimation is the lowest (or nearer) and the predictors should have p-values less than αcrit. The αcrit is sometimes called the “p-to-remove” and does not have to be 5%. If prediction performance is the goal, then a 15-20% cut-off may work best (“Chapter 10 Variable Selection”, n.d).

5.2.3.3.1 Association between Mandatory Disclosures and Voluntary Disclosures

Before conducting the multiple regression analysis between disclosures and the factors, this study focuses on the relationship between the two types of disclosures. According to Dye’s theory (1986) voluntary disclosures of a company is influenced by the mandatory disclosures. In order to answer the third question of the research (RQ3: Is there any association between the mandatory disclosures and voluntary disclosuresin the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?) the present section provides with regression analysis between both types of disclosures. In table 5.22explores that mandatory disclosure index (MDI) has a positively significant relation with voluntary disclosure index (VDI). The extent of mandatory disclosures can define 24.7% of variation in the extent of voluntary disclosures in the annual reports published by the listed manufacturing companies in the DSE.

Table 5.22: Association between MDI and VDI

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	-.979	.333		-2.942	.005
	MDI	1.825	.442	.512	4.134	.000
R^2 = .263 ; Adj. R^2 =.247; F = 17.088 ; Sig. =.000						

This positive association indicates the harmonizing relationship between mandatory and voluntary reporting and hence increased mandatory disclosure assures better voluntary disclosure as argued by Dye (1986) in Al-Razeen and Karbhari (2004) and Al-Htaybat (2014). This result is also consistent with the study of Abayo, Adams, and Roberts (1993) in the context of Tanzania. It has been argued by researchers that positive relation between both types of disclosures indicates an effective co-ordination between the board of directors and management in preparing the annual reports (Al-Razeen & Karbhari, 2004; Mokhtar, 2010).

5.2.3.3.2. Regression Analysis for Mandatory Disclosure related Models

For each of the dependent variables (MDI and VDI) quantitative data has been analyzed separately in three stages. Stage one includes multiple regression analysis of disclosure (dependent variable) with internal factors (independent variables) only. Stage two contains multiple regression analysis of disclosure (dependent variable) with external factors (independent variables). This is followed by further regression analysis of disclosure by including the most significant factors identified from the earlier two stages.

(i) Regression Analysis for Mandatory Disclosures (Without transformation)

In table 5.23, stage one shows multiple regression analysis of the mandatory disclosure index (MDI) with internal variables only. Stage two depicts multiple regression analysis of the mandatory disclosure index (MDI) with external variables. This is followed by another multiple regression analysis for the most significant variables (identified from stage 1 and stage 2) with mandatory disclosure index (MDI) in stage three.

The regression result of full form of model-1 shows that variable SIZE has a significant and positive association with (at $p< 0.10$ level) with the mandatory disclosure (MDI) which suggests that large companies observe higher compliance with the disclosure requirements. Opposing to that, MDI is negatively associated with profitability (PRT) at $p< 0.01$. This result implies that highly profitable companies show less mandatory information. This model is significant at 5% level (with an F value of 3.02). The R^2 of this model is .256, i.e.; this model explains only 25.6% of the variation in mandatory disclosure level of the sample companies (Appendix 5.5). By using stepwise regression (backward elimination method) we can get the reduced form of this model having the significant variables withbest prediction power (adjusted R^2 =.170). Panel A of table 5.23 shows thatthe reduced model drops variable INSDR (ownership structure) and INT (industry type) from the original model with a slight decrease in the original value of R^2 (.221). The regression result indicates that the model is statistically significant (F = 4.35, p = 0.01). The mandatory disclosure (MDI) is significant positive associated with SIZE (at $p < 0.05$ level) and negative associated with profitability (PRT) at $p< 0.01$. However, we can see the same variables are significant in the full form of the model-1 (Appendix 5.5).

Panel B of Table 5.23 summarizes regression results of the reduced form (the best form) of Model 2 showing the influence of external factors on the mandatory disclosure practice. It indicates that the model is statistically significant (F = 3.28, p = 0.013) and explains 27.2% (R^2) of the variation in the level of mandatory disclosure. Two variables, BSEC and AWRD, are found to be significantly positive at $p< 0.05$; whereas variable EXSH is significantly positive at $p< 0.10$. This result indicates that regulatory bodies, professional bodies and external shareholders are perceived to influence the listed companies under study to disclose more.

One external variable, trade association (TRDSO) is significant at 1% (p = .01) level, but the relationship is negative with MDI. This may indicate that companies showing higher mandatory information in the annual reports perceive low influence of the trade associations on disclosure practice. The regression result of the original model-2 also identifies the same factors as influencing variables (Appendix 5.5).

Panel C of Table 5.23represents the results of OLS regression considering only the most significant factors (identified from panel A and panel B) as independent variables. From the table it can be observed that the mandatory disclosure has significant positive association with BSEC (p = 0.08) and SIZE (p = 0.02) while it has significant negative association with TRDSO (p = 0.01), and PRT (p = 0.03). This result implies that level of mandatory disclosure in annual reports of the listed manufacturing companies under the present study increases if the firm is large in size.

The result indicates that highly profitable companies show less mandatory information. However, companies are influenced significantly by the regulatory bodies (BSEC) to show more mandatory information in their annual reports. The trade association is not acting as a positive pressure upon the companies under study in reporting the mandatory information. The model is significant (F = 3.93 at p =.0.003) and explains around 35% of the variation in the mandatory reporting practices by the companies under study.

(ii) Regression Analysis for Mandatory Disclosures (after transformation)

The previous section describes results of regression analysis without transforming the dependent variable, mandatory disclosure index (MDI). However, descriptive statistics in chapter five showed that data set of MDI has a negative skewness. In this part of analysis the MDI has been transformed by using RANKIT method. The aim is to explain if there are any significant differences between the results of multiple regression analysis relating to mandatory disclosure index (MDI) with or without transformation. In so doing, the same data analysis techniques are applied as in the previous section (Table 5.23). Stage one uses multiple regression analysis for the transformed mandatory disclosure index (TMDI) with internal variables only.

Table 5.23: Regression Analysis of Mandatory Disclosures

Panel A: Only Internal Factors

Model 1(Reduced Form): MDI = $\beta_0 + \beta_1$SIZE + β_2 PRT + β_3CFO + ε					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.452	.141		3.196	.003
SIZE	.015	.007	.334	2.184	.034
PRT	-.005	.002	-.428	-2.905	.006
CFO	.024	.017	.192	1.416	.163
R^2 = .221;Adj. R^2 = .170;F= 4.35;sig.= .009					

Panel B:Only External Factors

Model 2 (Reduced Form): MDI = $\beta_0 + \beta_1$BSEC+ β_2 AWRD + β_3TXAT + β_4 EXSH+ β_5 TRDSO +ε					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.423	.149		2.845	.007
BSEC	.064	.030	.289	2.128	.039
AWRD	.012	.006	.308	2.034	.048
TXAT	-.012	.009	-.214	-1.436	.158
EXSH	.018	.009	.303	1.937	.059
TRDSO	-.020	.007	-.429	-2.752	.009
R^2 = .272;Adj. R^2 = .189;F=3.28;Sig.= .013					

Panel C: Only Significant Factors (Internal and External)

MDI = $\beta_0 + \beta_1$BSEC+ β_2 AWRD + β_3 EXSH + β_4 TRDSO + β_5 SIZE + β_6 PRT+ ε					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.156	.191		.820	.416
BSEC	.051	.029	.230	1.788	.081
AWRD	.009	.006	.212	1.417	.164
EXSH	.012	.008	.196	1.402	.168
TRDSO	-.020	.007	-.431	-2.902	.006
SIZE	.016	.006	.361	2.496	.016
PRT	-.004	.002	-.332	-2.273	.028
R^2 = .354;Adj. R^2 = .264;F=3.926;Sig. = .003					

Stage two shows multiple regression analysis of the transformed mandatory disclosure index (TMDI) with external variables. This is followed by another multiple regression analysis for the most significant variables (identified from stage 1 and stage 2) with transformed mandatory disclosure index (TMDI) in stage three.

Panel A in Table 5.24 shows the regression analysis results of Model 1 (the reduced form) with transformed MDI. As the regression constant (intercept) is negative (-5.004), the independent variables explain more of the mean of the dependent variable (TMDI) so that, the power of the model is improved. The Model is significant at a $p< 0.01$ level ($F = 4.747$). The TMDI is positively and significantly ($p<0.05$) associated with the SIZE variable, whereas it has a significant negative association with PRT ($p < 0.01$). The adjusted R^2 reveals that 18.7% of dependent variable (TMDI) is explained by the independent variables.

These results have no significance difference from the results of the regression test presented in Table 5.23 for the untransformed mandatory disclosure index (MDI). The untransformed model is significant at a $p< 0.01$ level ($F = 4.35$) with the adjusted R^2 of 0.170.

Panel B of Table 5.24 depicts the regression result of transformed Mandatory Disclosure Index (MDI) with external factors (the reduced form).Here the significant factors identified are BSEC, AWRD, EXSH, TRDSO, same as in the untransformed model. This model is significant at $p< 0.01$ level with a value of F=3.7.

Panel C of Table 5.24 shows the relation of transformed MDI with all the significant factors as identified from panel A and panel B. this model is significant at $p< 0.01$ with an $F = 4.48$. The model identified BSEC, TRDSO, SIZE and PRT as the significant variables which are similar as in the same model with untransformed MDI (Table 5.23, panel C). The R^2.385 of the transformed model is slightly higher than the untransformed model (R^2=.354).

By comparing table 5.23 and table 5.24, it has been observed that regression result after transforming the MDI has no significant difference than the untransformed of MDI. Moreover, the model fit (Adjusted R^2) did not improve significantly after transformation.

Table 5.24: Regression Analysis of Transformed Mandatory Disclosures

Panel A: Only Internal Factors

Model 1 (Reduced Form): TMDI = $\beta_0 + \beta_1$SIZE + β_2 PRT + β_3CFO + ε						
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	-5.004	2.203		-2.271	.028
	SIZE	.247	.106	.353	2.328	.024
	CFO	.395	.264	.201	1.497	.141
	PRT	-.086	.029	-.435	-2.979	.005
R^2 = .236;Adj. R^2 = .187;F=4.747;sig.= .006						

Panel B: Only External Factors

Model 2(Reduced Form): TMDI = $\beta_0 + \beta_1$ BSEC + β_2AWARD+ β_3 TXAT + β_4EXSH + β_5TRDSO+ ε						
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	-5.879	2.296		-2.560	.014
	BSEC	1.124	.467	.320	2.406	.020
	AWRD	.203	.094	.320	2.154	.037
	TXAT	-.198	.134	-.216	-1.482	.145
	EXSH	.329	.146	.346	2.252	.029
	TRDSO	-.314	.113	-.425	-2.777	.008
R^2 = .299;Adj. R^2 = .219;F= 3.748;sig.= .007						

Panel C: Only Significant Factors

TMDI = $\beta_0 + \beta_1$ BSEC + β_2AWARD+ β_3 EXSH + β_4 TRDSO + β_5 SIZE+ β_5 PRT +ε						
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	-10.355	2.930		-3.534	.001
	BSEC	.918	.441	.262	2.083	.043
	AWRD	.141	.093	.222	1.524	.135
	EXSH	.232	.130	.243	1.782	.082
	TRDSO	-.318	.107	-.430	-2.968	.005
	SIZE	.265	.099	.378	2.676	.011
	PRT	-.064	.028	-.325	-2.277	.028
R^2 = .385;Adj. R^2 = .299;F= 4.480;sig.= .001						

5.2.3.3.3 Regression Analysis for Voluntary Disclosure related Models

The regression result of original model-3 shows that variable SIZE is significantly and positively associated with (at $p < 0.01$ level) with the voluntary disclosure (VDI) which suggests that large companies tend to show more voluntary information. Opposing to that, VDI is negatively associated with ownership concentration (INSDR) at $p < 0.15$. This result implies that companies having more insider shareholders disclose less discretionary information. This model is significant (with an F value of 4.31 at 0.003 level). The R^2 of this model is .329, i.e; this model explains 32.9% of the variation in the voluntary disclosure level of the sample companies (Appendix 5.4). By using stepwise regression (backward elimination method) we can get the reduced form of this model having the factors of best prediction capacity (adjusted R^2=.292). Panel A of table 5.25 shows that if the variable PRT (profitability), INT (industry type) and CFO (qualifications of accountants) are dropped from the original model-3, there will be a slight decrease in the original value of R^2 (.321). However, SIZE is significant and positively associated with voluntary disclosure (at $p = 0.00$) and INSDR is negatively associated (p =.118 level). The model is statistically significant ($F = 11.09$, $p = 0.00$).

Panel B summarizes the regression results of model 4 (reduced form) using external factors as the independent variables. It indicates that the model is statistically significant ($F = 4.49$, $p = 0.01$) and explains around 23 % (R^2) of the variation in the level of voluntary disclosure in the annual reports of the listed manufacturing companies. Two variables, EXSH and AWRD, are found to be positively significant (at $p < 0.05$ and $p = 0.004$), which supports the concept that external shareholders (as economic factor) and professional bodies (socio-political factor) are perceived to create positive pressure to the companies under study to disclose more information beside the mandatory ones. The regression result of the original model 4 also identifies the same factors as significant variables (Appendix 5.5). Panel C of Table 5.25 represents the results of OLS regression considering only three significant factors SIZE, EXSH and AWRD (from panel A and panel B). From the table it can be observed that the voluntary disclosure has significant positive association with SIZE (at $p = .000$) and AWRD ($p = 0.02$). The three factors predict around 40% of the variation in the voluntary disclosure level of the sample companies.

Table 5.25: Regression Analysis of Voluntary Disclosures

Panel A: Only Internal Factors

Model 3 (Reduced Form): $VDI = \beta_0 + \beta_1 SIZE + \beta_2 INSDR + \varepsilon$

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
	(Constant)	-1.592	.426		-3.739	.001
	SIZE	.093	.020	.586	4.696	.000
	INSDR	-.088	.056	-.199	-1.592	.118

$R^2 = .321$; Adj. $R^2 = .292$; F= 11.087; Sig. = .000.

Panel B: Only External Factors

Model 4 (Reduced Form): $VDI = \beta_0 + \beta_1 AWARD + \beta_2 EXTSH + \beta_3 TRDSO + \varepsilon$

Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	(Constant)	.118	.093		1.273	.209
	AWRD	.062	.020	.417	3.051	.004
	EXSH	.059	.029	.302	2.039	.047
	TRDSO	-.049	.032	-.231	-1.500	.140

$R^2 = .227$; Adj. $R^2 = .176$; F=4.49; sig.= .001

Panel C: Only Significant Factors (Internal and External)

$VDI = \beta_0 + \beta_1 AWARD + \beta_2 EXSH + \beta_3 SIZE + \varepsilon$

Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
	(Constant)	-1.431	.397		-3.606	.001
	AWRD	.043	.017	.292	2.496	.016
	EXSH	.027	.023	.138	1.183	.243
	SIZE	.074	.019	.465	3.965	.000

$R^2 = .395$; Adj. $R^2 = .356$; F=10.027; sig.= .000

5.2.3.4 Summary of Regression Results

The present study recognizes the combined influence of internal and external factors on disclosure practice of companies under study. Table 5.26provides the summary of regression analyses.

Table 5.26: Summary of Regression Analyses

Hypothesis	Findings
Association between Mandatory Disclosures and Voluntary Disclosures	
Hypothesis	Findings
Hp: The extent of voluntary disclosures in the annual reports of listed manufacturing companies in the DSE is positively associated with the extent of mandatory disclosures.	It is revealed that level of mandatory disclosures by a listed manufacturing company in the Dhaka Stock Exchange (DSE) have a significant and positive influence on the level of voluntary disclosures. It implies that the companies showing more information from the mandatory items tend to show more information from the voluntary items in their annual reports.
Regression Results about Determinants of Mandatory Disclosures	
H1a: The extent of mandatory disclosures in the annual reports of the listed manufacturing companies in the DSE is positively associated with their size.	The regression analysis reveals a significant positive relationship between company size and the level of mandatory disclosures for the listed manufacturing companies in DSE. So it can be said that larger companies are providing more mandatory information in their annual reports.
H2a: The quality of accountants in the listed manufacturing companies in the DSE positively influences the mandatory disclosures in the annual reports.	Regression results show no strong support that qualifications of accountants have any influence on mandatory disclosures.
H3a: There is a negative association between profitability and the level of mandatory disclosures in the annual reports of the listed manufacturing companies in the DSE.	The regression analysis reveals a significant negative relationship between profitability and the level of mandatory disclosure of listed manufacturing companies on the DSE. So the hypothesis is established and it can be stated that companies with high profitability rate are reluctant to providing more mandatory information in their annual reports. This may be due to the fear of increased risk of competition after disclosures.
H4a: Insider ownership concentration has a significant negative impact on the extent of mandatory disclosures in the annual reports of listed manufacturing companies in the DSE.	The results provide no significant support that insider ownership concentration affects the level of mandatory disclosures for the listed manufacturing companies in the DSE.

H5a: A modern listed company discloses more mandatory information in the annual report.	Similar to the hypothesis H2a and hypothesis H4a; this hypothesis is also not established by the present study. The results show that the industry type of a company does not have any impact on mandatory disclosures.
H6a: The level of mandatory disclosures provided by listed manufacturing company in the DSE is positively associated with its perceived influence of regulatory bodies.	The regression analysis reveals a significant positive relationship between perceived influence of regulatory bodies and the level of mandatory disclosures of listed manufacturing companies on the DSE. The result implies that while providing the mandatory disclosure in the annual reports, companies tend to follow the instructions provided by the BSEC.
H7a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of professional bodies.	Regression results do not significantly support this hypothesis. It cannot be said that professional bodies are having a positive influence to motivate the companies to provide more mandatory information.
H8a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of tax authority.	The results provide no strong support for this hypothesis, i.e., the taxing authority does not have any association with mandatory disclosures of the listed manufacturing companies in the DSE.
H9a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of external shareholders.	The regression analysis reveals a non significant positive relationship between external shareholders with mandatory types of disclosure for the listed manufacturing companies in DSE. So the hypothesis cannot be established.
H10a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of trade associations.	The results show a strong negative association between trade associations and the level of mandatory disclosures. This may convey that most of the companies under the present study perceive that trade associations are not providing adequate influence on the companies to provide more mandatory information in their annual reports. More future research is required to focus light on the role of trade associations in this regard.
H11a: The level of mandatory disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of media.	Similar to the hypothesis 7a, 8a and 9a; this hypothesis is also not established in the study. The results show that the media does not have any type of influence on the companies to provide more mandatory type of disclosures.
Regression Results about Determinants of Voluntary Disclosures	
H1b: The extent of voluntary disclosures in the annual reports of the listed	Regression results reveal a significant positive relationship between company size and the

manufacturing companies in the DSE is positively associated with their size.	level of voluntary type of disclosures. So we can say that larger companies are providing more voluntary information in their annual reports.
H2b: The quality of accountants in the listed manufacturing companies in the DSE positively influences the voluntary disclosures in the annual reports.	The regression results show no strong association between voluntary disclosures and quality of the accountants. So the study does not support this hypothesis.
H3b: There is a negative association between profitability and the level of voluntary disclosures in the annual reports of the listed manufacturing companies in the DSE.	Regression results reveal no significant relationship between company's profitability and the level of voluntary disclosures. So the hypothesis is not established.
H4b: Insider ownership concentration has a significant negative impact on the extent of voluntary disclosures in the annual reports of listed manufacturing companies in the DSE.	The results depict no strong support to this hypothesis. So it can be said that insider ownership concentration doesn't have any type of influence on voluntary disclosures.
H5b: A modern listed company discloses more voluntary information in the annual reports.	Similar to the hypothesis 2b, 3b and 4b; this hypothesis is also not established in the study. The results show that the type of a company does not have any impact on voluntary disclosures.
H6b: The level of voluntary disclosures provided by listed manufacturing company in the DSE is positively associated with its perceived influence of regulatory bodies.	Regression results reveal no significant positive relationship between these variables; so the hypothesis is not established. The results indicate that most of the companies don't perceive any positive influence from the regulatory bodies (especially the BSEC in this study) to provide more voluntary type of information.
H7b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of professional bodies.	Regression results show a strong support for establishing this hypothesis that professional bodies are having motivating the companies to provide more voluntary information. It may imply that most of the companies under the study perceive receiving award is important to maintain their image in the market.
H8b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of tax authority.	The results show no significant support to establish this hypothesis, i.e. tax authority doesn't have any influence on corporate voluntary disclosure.
H9b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of	Similar to the hypothesis 8b; this hypothesis is also not established in the study. The results show that the external shareholders of a company do not create any pressure on the

external shareholders.	listed manufacturing companies to disclose more voluntary type of information.
H10b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of trade associations.	The results show no significant relationship between voluntary disclosures and trade associations. So the hypothesis is not established.
H11b: The level of voluntary disclosures provided by a listed manufacturing company in the DSE is positively associated with its perceived influence of media.	The regression analysis reveals no significant relationship between media with voluntary disclosures of the listed manufacturing companies in DSE.

5.3Summary

In the first part of this chapter extent of mandatory and voluntary disclosures in the annual reports of companies under study has been evaluated. The descriptive statistics show that the average disclosure score for mandatory information is 75.12%. Majority (52%) of the sample companies provide information more than the average level. It has been found listed companies under this study are complying better with the regulations for disclosures about general corporate information, directors' report and in the face of all the financial statements. But companies are not providing detailed explanation in notes about items shown in the face of financial statements and they are not providing all the ratios required by law. It has been found that cement sector provides the highest level of disclosures whereas jute sector provides the lowest level of disclosures. Average level of voluntary disclosures among the sample companies is very disappointing (39.18%). This implies that listed manufacturing companies in Bangladesh are not yet very eager to publish additional information about their activities beyond the regulated ones. Descriptive statistics show that information related to very contemporary issues like environment and human resources are neglected to be disclosed. It has been observed that ceramic sector shows the highest level jute sector provides the lowest level of voluntary information.

The second part of this chapter examines about the influence of different factors on corporate disclosures. For qualitative analysis, a discussion is provided about the face to face interview conducted with some experts in this field. The interviewees agreed that listed manufacturing companies in Bangladesh are not publishing all the mandatory information in the annual reports and also the level of voluntary disclosures is not satisfactory. Some major factors affecting the level of disclosures that have been identified from the interview discussion are regulatory bodies (especially the BSEC), the professional bodies (mainly the ICAB), qualification of the CFO and top managements' attitude of the company. It has been understood that most of the external shareholders are not aware about the information published in annual reports, but now-a-days some investors are coming up with proper knowledge and creating pressure on companies for better disclosures. Most of the participants agree that media(especially the online ones) has an important role in the disclosure practice of listed companies in Bangladesh. The majority of the interviewees opine that trade associations may have some influence on their member companies' reporting practice.

Quantitative analysis is made on the basis of content analysis of annual reports (for internal factors including size, profitability, ownership structure, quality of accountants, and types of industry) and a perception survey of management of the sample companies (for external factors consisting regulatory bodies, professional bodies, tax authorities, external shareholders, trade associations, and media). These factors have been identified from literature review and the interview. It has been found that a significant positive relationship exists between both types of disclosures in annual reports of the sample companies. This finding may assure the stakeholders that companies that publish exhaustive mandatory information also provide sufficient necessary relevant information which is not required by law. This also indicate a positive relation between board and the management about disclosures. For investigating the influence of different factors (independent variables) on disclosures (dependent variables) of sample companies, two separate disclosure indexes are developed for mandatory disclosures and voluntary disclosures. Separate discussions have been made by considering these two indexes as dependent variables. Correlation between extent of mandatory disclosures and the factors show that the regulatory bodies, qualification of accountants and size of the company have positive correlation. Profitability of the company and trade association has significant negative correlation with mandatory disclosures. Voluntary disclosures have significant positive correlation with size of the company, regulatory bodies, external shareholders and professional bodies.

Regression analysis results show that if only the internal factors are considered, mandatory disclosures have significant positive association with size of the company and significant negative association with profitability of the company. On the other hand if only the external factors are considered, mandatory disclosure of a company is positively related with its perceived influence of the regulatory bodies; the professional bodies; and the external shareholders. But mandatory disclosure has significant negative association with trade associations. When the simultaneous impact of internal and external factors are considered, the most significant factors are found to be the regulatory bodies, the trade associations, size and profitability of the company. This result implies that mandatory disclosures in annual reports increase if the company is larger in size and if the company perceives a greater influence of the regulatory bodies for better disclosures. Also the result reveals that highly profitable companies show less mandatory information. It has also been understood that trade associations are not creating any positive influence on the companies for mandatory disclosures.

The regression analysis shows that if only internal factors are considered, it is observed that voluntary disclosures are significantly and positively related with size and negatively associated with ownership structure of the company. For external factors, it can be noticed that voluntary disclosures have significant positive association with the perceived influence of professional bodies and the external shareholders. While considering the combined effect of both internal and external factors it is found that the most significant factors are professional bodies and size of the company. The result can be explained as; larger companies are providing more voluntary information in addition to the mandatory ones and the awards provided by different professional bodies are playing a positive role to the voluntary disclosures of the sample companies.

It can be concluded that listed manufacturing companies in Bangladesh mainly give importance to the instructions of the BSEC and the professional bodies especially the ICAB while preparing their annual reports. Disclosures in the annual reports are dependent on how the preparers perceive about the influence of these two authorities. Therefore in order to improve the reporting environment in the capital market these two authorities must be more active. The regression result suggests that mandatory and voluntary disclosures are positively associated. If the regulatory authorities become more stringent to compel companies for mandatory disclosures the level of voluntary disclosures would automatically improve. This may be helpful to protect general investors' interest to get true and fair information about the companies. As per the results of this study the role of trade associations in disclosure scenario is very disappointing. It indicates that trade associations are not encouraging the members about better disclosures in annual reports. However trade associations can play a major role in implementing the international accounting standards in our country. They can explore the problems and areas to be adjusted in the context of their individual business nature, such as readymade garment sector may need special kind of standards for reporting information. However, the regression results of this study cannot indicate any impact of tax authorities and media on disclosures. Further research is needed to investigate the role of trade associations, tax authorities, and media in disclosure environment of Bangladesh.

CHAPTER SIX

SUMMARY OF FINDINGS, LIMITATIONS AND CONCLUSION

6.0 Introduction

This chapter provides a discussion of findings of the study, limitations of the study and provides a commentary on potential future research areas. In so doing, this chapter is organized as follows: section 6.1 presents summary of the empirical findings; section 6.2 highlights the implications of the study; section 6.3 describes the limitations of the study. Finally section 6.4summarizes this chapter.

6.1 Summary of Empirical Findings

The aim of the thesis identified in Chapter one is to investigate disclosure and its determinants in the annual reports of DSE-listed manufacturing companies. In Chapter two an overview of corporate reporting environment prevailing in Bangladesh and previous studies on determinants of disclosure has been demonstrated. The literature review in Chapter two demonstrates that companies' internal and external environment affect the reporting practice in general. In Chapter three, the study discusses in brief about the popular disclosure theories and presents the justification of applying contingency theory in this research. On the basis of the literature and theoretical discussion it has been understood that annual report disclosure of the listed manufacturing companies in the DSE is affected by their specific internal attributes and external environmental factors. Therefore a conceptual framework and hypotheses of the study have been developed in Chapter three. Chapter four presents methodology, population and sample, data collection method and statistical design of the study. Chapter five provides the analysis of data including descriptive statistics, qualitative analysis of the interview and quantitative analysis to test the hypotheses.

In the following paragraphs the findings of the study are summarized:

Research Question 1: What is the extent of mandatory disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?

Empirical Findings:

- Content analysis of annual reports confirms that the companies under the study are not fully complying with disclosure regulations of the BSEC. The average level for mandatory disclosure is 75.12%, which is better than the previous studies on mandatory disclosure in Bangladesh such as; 44% in Akhtaruddin, (2005);50.62% in Hasan and Hosain, (2015). The present study also reveals a narrow range of mandatory information disclosure varies from 55% to 87% (with a standard deviation of 6.29%) which is also better than the previous studies. The majority of companies (52 %) scored above the average level. One possible reason for the improved level of mandatory disclosures among the listed companies may be the enhanced monitoring and enforcement system by the BSEC.
- It is noticeable that companies under study are complying almost 90% or above with the items to be shown in the face of all the four statements, but in explanatory notes they are not disclosing the detailed information (mean value 68.4%) regarding those statements. Companies also don’t fully comply with other vary two important items; general corporate information and director's report. The lowest disclosure score is for ratio analysis, which is 27% only.
- Among the nine sectors of listed manufacturing companies under study, cement sector has the highest average (79%) of mandatory disclosures. Whereas the companies under the jute sector discloses the lowest mandatory information (69%) in their annual reports.
- It is remarkable that no company discloses all the information as per the extensive list used in this study.A reason for the shortfall of mandatory disclosure among companies may be that some companies assume that the cost of disclosure outweighs the benefits. Such non-compliance also suggests that mechanisms used by enforcement bodies in Bangladesh for monitoring compliance are yet to be adequate in some cases.

Research Question 2: What is the extent of voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?

Empirical Findings:

- The average of voluntary disclosure score of companies in this study is about 39.18% (with a standard deviation of 22.4%), which is very disappointing. However, this result was anticipated from the prior empirical studies on the manufacturing companies in Bangladesh such as;37% in Hasan and Hosain, (2015);32.14% in Nurunnabi and Hossain, (2012).
- Findings also reveal that most of the companies (74%) disclose 55% or less of the total voluntary items from the list used in this study. Only 8 per cent scored between 76% and 85% which is the highest level in this study. This result suggests that generally companies under study are reluctant to provide additional information in the annual reports. This might be because of absence of a standard form of annual report and lack of strong enforcement of laws for 'true and fair view' presentation of companies' activities. Another cause may be the ineffective role of the ICAB to promote voluntary disclosure practice. Among the different categories of voluntary items, the title 'general corporate information' depicts the highest disclosure level of 57.75%, while the disclosure for 'environment' shows the lowest level of 32%.
- It has been observed that among the nine sectors under study, ceramic sector shows the highest level (61%) of voluntary disclosure, followed by the pharmaceutical & chemical sector (50%). The jute sector discloses the lowest voluntary information (a mean of 8%) followed by the tannery sector (23%). It is noticeable that these two sectors also have the two lowest means for mandatory disclosures (69 % and 70% respectively) also. So it can be concluded that jute sector and tannery sector of Bangladesh discloses the lowest level of information (both mandatory and voluntary) in the annual report.

Research Question 3: Is there any association between the mandatory disclosures and voluntary disclosures in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE)?

Empirical Findings:

- This research question is analyzed by correlation and regression analysis. The result depicts that mandatory disclosure (MDI) is significantly and positively related with voluntary disclosure (VDI) which is similar to the previous studies (Einhorn, 2005; Mokhtar, 2010).The positive association reflects the harmonizing relationship between the two types of disclosure and implies that companies showing increased level of mandatory disclosure also show higher level of voluntary disclosure and vice versa. This also indicates a good cooperation between the board and management of the company regarding disclosures (Mokhtar, 2010).

Research Question 4: What are the factors that influence the disclosure of mandatory and voluntary information in the annual reports of listed manufacturing companies in Dhaka Stock Exchange (DSE)?

Empirical Findings:

- From the interview: All the interviewees recognized some important factors including management attitude towards disclosure, quality of accountants, role of regulatory bodies, role of the ICAB and external shareholders relating to the disclosures practice of listed manufacturing companies in Bangladesh. Most of them admitted the role of media. A major part of the respondents agreed that there may be a role of trade association on the disclosure practice. Another important factor influencing the disclosure practice was identified as the cost of reporting or size of the company.
- From the statistical tests: Correlation analysis by the Pearson’s test reveals significant positive relation of quality of accountants (variable CFO), size of the companies (variable SIZE) and regulatory bodies (variable BSEC) with the mandatory disclosure. Beside profitability (variable PRT) and trade associations (variable TRDSO) have negative correlation with total mandatory disclosure.

  Voluntary disclosure is positively and significantly correlated with size of the company (variable SIZE), the professional bodies (variable AWRD) and external shareholder (variable EXSH).

- Results of regression analysis (by considering both internal and external factors jointly) show that the level of mandatory disclosure is significantly and positively associated with BSEC ($p < 0.10$), SIZE ($p < 0.05$) and a significant negative relationship with TRDSO ($p < 0.01$) and PRT ($p < 0.05$). This result implies that level of mandatory disclosures increase with the size of the firm. On the other hand, highly profitable companies tend to show less mandatory information. Among the external factors, companies perceive a positive influence from the regulatory bodies (mainly the BSEC) for mandatory disclosures. On the other hand, perceived influence of trade associations is not creating any positive vibes on the companies under study in reporting the mandatory information. However voluntary disclosures has a significant positive association with award given by the professional bodies (variable AWRD) ($p <.05$) and SIZE ($p < 0.01$). The result can be explained as; larger companies are providing more information in addition to the mandatory ones. Also companies under the study are encouraged to win the awards provided by different professional bodies for disclosure. This may because of maintaining a good image in the market.

6.2 Implications of the Study

The present study contributes to the accounting literature in a developing country context. It focuses on mandatory and voluntary disclosures and explores a positive relation between them. In this study some important factors in the disclosure environment prevailing in Bangladesh have been identified from the interview with some experts. Quantitative analyses have been made to recognize the influence of those factors on the annual report disclosures of listed manufacturing companies. Findings of the study suggest that company’s reporting behavior depends on both firm-level and country-level factors. Considering both types of factors as determinants for both types of disclosures is rare in literature in Bangladesh context. From this study regulators and other concerned parties may get a better understanding about the perception of mangers oflisted manufacturing companies regarding the role of regulators and motivational activities by the professional bodies. The negative perceived influence of trade associations may advocate the necessity of active participation by business leaders in setting accounting and reporting related rules and standards in our country. Further, the present study applies a realistic theoretical basis for considering some important variables which were not previously investigated in empirical research in Bangladesh. The theoretical framework and the disclosure index developed for this study can be used for future studies from which some firm suggestions may come out.

6.3Limitations of the Study

Results of the study should be explained by considering some limitations in mind. Firstly, the sample of the study includes only listed manufacturing companies. The findings may not be applied to all types of companies. Secondly, the study considers only one year of data to avoid economic and legislative changes. The results may vary if the analysis would cover various years. Third, there may be some imperfections in computing the disclosure indexes due to unavoidable subjectivity while choosing the items in the checklists. In order to reduce subjective judgment, the checklists are developed mainly based on previous studies and annual reports of some the companies has been reviewed to select the relevance of the items in the context of the company, as recommended by Cooke (1989).After all these efforts subjectivity cannot be avoided entirely and it is not logical to expect to do so. Fourth, the study focuses on the relationship between the corporate disclosure with the some company attributes and several factors within national environment. There may be other factors in the national and international environment that has not been covered in this study. Finally, the research investigates the extent of disclosure for only fifty companies due to the difficulty of gathering data from the high official from target population. Literature suggests an existence of a culture of secrecy, mistrust and discomfort among the public limited companies to share their views. Therefore, the implications of this study could be improved if a larger number of listed companies on the DSE can be studied. Last but not the least; one should be cautious in interpreting the findings of the study as it is applicable for the disclosure checklist especially developed for the present study and valid to the time period thereof.

6.4 Conclusion

This study has attempted to investigate influence of both internal and external factors on disclosures in annual reports of listed manufacturing companies in the Dhaka

Stock Exchange (DSE). The discussion is based on a face to face interview with some experts, content analysis of annual reports and a questionnaire survey of persons involved in preparing annual reports of companies. All the interviewees agreed that listed manufacturing companies in Bangladesh are neither disclosing with full compliance to the regulatory requirements, nor they are providing a satisfactory level of voluntary information. The participants generally opine that companies try to publish only the minimum requirements according to the existing regulatory systems but are reluctant to provide additional information. All the persons interviewed opined that weak legal systems and lack of enforcement of existing laws are the major causes of low level disclosure by the companies. All the interviewees consented that monitoring and supervision by the BSEC and the ICAB is not adequate for checking the compliance by all the companies. From the interview it has been recognized that management's attitude towards disclosure, quality of CFO, demand of external shareholders, role of the regulatory bodies (especially the BSEC), and role of the professional bodies (especially the ICAB) are the most influencing factors for disclosures in annual reports. Another important factor influencing the disclosure practice was identified as the role of media. Most of the participants are confused but agreed that there may be a positive role of trade association in this regard. Some of the respondents mentioned size and profitability as important factors for corporate disclosures.

This research attempts to ascertain the impact of both internal and external factors on disclosures. Multiple regression analysis has been done to test the hypotheses developed in this study. To compare the relative influence of the factors, the standardized coefficients of regression analysis can be used. For mandatory disclosures, perceived influence of trade associations (Hypothesis 10a) is the most influential factor having the highest Beta coefficient, followed by the size (Hypothesis 1a) and profitability of the company (Hypothesis 3a). The perceived influence of regulatory bodies (Hypothesis 6a) has comparatively lower importance (coefficient 0.230; $p< 0.10$) in predicting the level of mandatory disclosures. The positive influence of size is consistent with the expectation of Hypothesis 1a and with a number of prior studies suggesting idea that larger firms disclose more mandatory information than smaller firms. The negative influence of profitability also supports the Hypothesis 3a and consistent with some prior studies; supporting the concept that listed manufacturing companies in the DSE do not want to share detailed information in order to avoid risk of competition. The positive influence of regulatory bodies (especially the BSEC) on mandatory disclosures supports the postulate that the BSEC has become more active in taking appropriate measures to compel the companies to provide more mandatory disclosures. But the negative influence of trade associations is contrary to our expectations. It indicates that they are not concerned about the disclosure practice of their members. One of the causes for this reluctance may be lack of opportunity to participate in adopting accounting standards. As there is no previous empirical study focusing on the role of trade associations in Bangladesh on disclosures of companies; further research can be made in this area. Unfortunately the regression results do not provide any strong support about the influence of other independent variables on the mandatory disclosures.

On the other hand, size of the company (Hypothesis 1b) is the most influential factor (Beta coefficient .465) followed by the perceived influence of professional bodies (Hypothesis 7b) in predicting the level of mandatory disclosures. The positive influence of size is consistent with the expectation of Hypothesis 1b and with a number of prior studies suggesting idea that larger firms disclose more voluntary information than smaller firms. The positive influence of professional bodies on voluntary disclosures supports the postulate that the ICAB, the ICMAB and other professional bodies are motivating the listed manufacturing companies to present more voluntary information in the annual reports; by arranging ‘award for better disclosure’. From the survey it was found that most of the companies are aware of creating a good image in the market. However, from the regression results no significant relationship of other independent variables with voluntary disclosures has been observed. Findings of both qualitative and quantitative analysis establish the role of regulatory bodies, professional bodies and size of the company as important factors for corporate disclosures in Bangladesh.

Although regression results of models used in present study don’t show high values forR^2 and Adjusted R^2, it is equivalent to other disclosure studies (Morris & Gray, 2007; Hossain, 2006; Das, 2015; Sochi, 2016) and this phenomenon is common in social science research. However, results of the present study should be interpreted cautiously, as it relates to a certain time period and applicable only to the level of the disclosure indexes used in this study.

Previous studies detected that disclosure practice in Bangladesh is not satisfactory and doesn't meet the expectations of stakeholders. Therefore, it is necessary to discuss this matter for ensuring excellence in financial reporting environment and good corporate governance. Since the environmental factors are different among countries (especially between developing and developed countries), whole sale adoption of international standards of reporting in developing countries like Bangladesh may be detrimental. The regulators and professional bodies must have proper understanding of factors influencing corporate reporting practice. Findings of this research may have practical implications in this regard. Results of this study will enhance the understanding of reporting behavior in a developing country context by showing the simultaneous influence of a company's internal and external environmental factors.

However, like most other similar studies this research is not free from several limitations. As this study is on the listed manufacturing companies of Bangladesh, it is possible that findings may differ in other countries due to varying socio-economic and political condition among countries. Another issue is that it uses managers' 'perceptions' of external factors rather than 'actual' value of external factors. As this study is confined to one accounting period; a longitudinal study may create varied outcomes in different settings. Therefore, one must cautiously interpret the results of this study.

Notwithstanding the above limitations, the contribution of the study lies to demonstrate empirically (probably for the first time) the simultaneous impact of company's internal attributes and external environmental factors (within the national boundary) on reporting practice of listed manufacturing companies in Bangladesh.

References

Abayo, A. G, Adams, C. A, & Roberts, C. B. (1993). Measuring the quality of corporate disclosure in less developed countries: The case of Tanzania. J*ournal of International Accounting Auditing and Taxation*, *2*, 145–158. doi: 10.1016/1061-9518(93)90003-C

Abdullah, M., Evans, L., Fraser, I., &Tsalavoutas, I. (2015). IFRS mandatory disclosures in Malaysia: The influence of family control and the value (ir) relevance of compliance levels. *Accounting Forum*, *39* (4), 328-348. doi: 10.1016/j.accfor.2015.05.003

Adekanmi, A. D., Adewumi, A. R, & Adeyinka, A. J. (2015). Determinants of Socio-Environmental Reporting of Quoted Companies in Nigeria. *Journal of Research in Business, Economics and Management*, *4*(4), 459-471. Retrieved from http://www.scitecresearch.com/journals/index.php/jrbem/article/view/476

Ahmed, D. M. F., & Ali, M. B. (2013). Efficiency in Bangladesh stock market behavior: Empirical evidence. *Journal of Business Studies, 34* (3), 79-103. Retrieved from https://www.fbsdu.com/news_event/14664867424.%20Dr.%20M.pdf

Ahmed, S. (2016). Rise in manufacturing sector's contribution to GDP stressed. *The Independent*. Retrieved from http://www.theindependentbd.com/home/printnews/74702

Ajibolade, S. O. (2013). Drivers of choice of management accounting system designs in Nigerian manufacturing companies. *International Journal of Business and*

Social Research, *3*(9), 45-57. Retrieved from https://ir.unilag.edu.ng/handle/123456789/2404

Akhtaruddin, M. (2005). Corporate mandatory disclosure practices in Bangladesh. *The International Journal of Accounting*, *40*, 399-402. doi:10.1016/j.intacc.2005.09.007

Akhter, S., & Dey, P. K. (2017). Sustainability reporting practices: Evidence from Bangladesh. *International Journal of Accounting & Financial Reporting*, *7*(2), 61-78. doi:10.5296/ijafr.v7i2.11659

Aksu, M., & Kosedag, A. (2006). Transparency and disclosure scores and their determinants in the Istanbul Stock Exchange. *Corporate Governance: An International Review*, *14*(4), 277-296. doi: 10.1111/j.1467-8683.2006.00507.x

Alam, J., & Chowdhury, A. H. M. Y. (2012). A closer look at the causes of poor corporate disclosure in Bangladesh: An empirical study. *BUP JOURNAL*, *1*(1), 44-55. Retrieved from https://www.bup.edu.bd/system/uploads/journal/file/17/BUP_JOURNAL_2012_compressed.pdf

Alberti-Alhtaybat, L. v., Hutaibat, K., & Al-Htaybat, K. (2012). Mapping corporate disclosure theories. *Journal of Financial Reporting & Accounting*, *10* (1), 73-94. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/19852511211237453/full/html

Alboali, S., Hamid, E., & Moosavi, S. A. (2013). The study of contingency components roles in the design of municipals' accounting systems: A case study. *Journal of Business and Management Sciences*, *1*(5), 96-104. doi:10.12691/jbms-1-5-3

Alfraith, M. M., & Almutawa, A. M. (2014). Firm-specific characteristics and corporate financial disclosure: Evidence from an emerging market. *International Journal of Accounting and Taxation*, *2*(3), 55-78. doi: 10.15640/ijat.v2n3a4

Al-Htaybat, K. A. (2014). Codification theory is a gateway for setting mandatory reporting requirements in emerging economies. *International Journal of Economics and Finance, 6*(11), 21-35. doi:10.5539/ijef.v6n11p21

Ali,W., & Rizwan, M. (2013). Factors influencing Corporate Social and Environmental Disclosure (CSED) practices in the developing countries: An institutional theoretical perspective. *International Journal of Asian Social Science*, *3*(3), 590-609. Retrieved from https://www.researchgate.net/publication/263465352_FACTORS_INFLUENCING_CORPORATE_SOCIAL_AND_ENVIRONMENTAL_DISCLOSURE_CSED_PRACTICES_IN_THE_DEVELOPING_COUNTRIES_AN_INSTITUTIONAL_THEORETICAL_PERSPECTIVE

Al-Jabri, H., & Hussain, M., M. (2012). Compliance with International Accounting Standards requirements among Omani listed companies. *Journal of Administrative and Economic Sciences, 5*(2), 75-105.

Aljifri, K., Alzarouni, A., Ng, C., & Tahir, M. I. (2014). The association between firm characteristics and corporate financial disclosures: Evidence from UAE companies, *International Journal of Business & Finance Research, 8*(2), 101-123. Retrieved from https://ideas.repec.org/a/ibf/ijbfre/v8y2014i2p101-123.html

Al-Omari, A. M. (2010). The institutional framework of financial reporting in Jordan. *European Journal of Economics, Finance and Administrative Sciences*, *22*(1), 32-50.

Alrawi, H. A., & Thomas, S. S. (2007). Application of contingency theory of accounting information to the UAE banking sector. *Asian Academy of Management Journal*, *12*(2), 33-55. Retrieved from https://www.researchgate.net/publication/43655785_APPLICATION_OF_CONTINGENCY_THEORY_OF_ACCOUNTING_INFORMATION_TO_THE_UAE_BANKING_SECTOR

Al-Razeen, A., & Karbhari, Y. (2004). Interaction between compulsory and voluntary disclosure in Saudi Arabian corporate annual reports. *Managerial Auditing Journal*, *19*(4), 351-360. doi: 10.1108/02686900410524364

Al-Shammari, B., Brown, P., & Tarca, A. (2008). An investigation of compliance with international accounting standards by listed companies in the Gulf Co-Operation Council member states. *The International Journal of Accounting*, *43*(4), 425–447. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=963574

Al-Ulis, I. (2006). *Corporate financial reporting reform in economies in transition: The extent of compliance with international financial reporting standards disclosure requirements in Annual Reports* (Unpublished Doctoral dissertation). The University of Surrey, British Library, EThOS-Beta. Retrieved from https://openresearch.surrey.ac.uk/esploro/outputs/doctoral/Corporate-Financial-Reporting-Reform-in-Economics/99514328802346#file-0

Aly, D., Simon, J., & Hussainey, K. (2010). Determinants of corporate internet reporting: evidence from Egypt. *Managerial Auditing Journal*, *25*(2), 182-202.doi:10.1108/02686901011008972

Aminuzzaman, M., Bakar, R., & Islam, M. A. (2015). Mandatory compliance with IASs and IFRSs in an emerging economy: A case of Bangladesh. *International Business Management*, *9*(1), 7-14. Retrieved from http://docsdrive.com/pdfs/medwelljournals/ibm/2015/7-14.pdf

Amit, S. (2016, April 23). Bangladesh capital markets: An overview. *The Financial Express*. Retrieved from https://www.thefinancialexpress.com.bd/views/bangladesh-capital-markets-an-overview

Andesto, R. (2016). The influence of perceived environmental uncertainty and business strategy on Management Accounting System (Survey on the Indonesia advertising companies). *European Journal of Accounting, Auditing and Finance Research*, *4*(3), 27-36. Retrieved from https://www.eajournals.org/wp-content/uploads/The-Influence-of-Perceived-Environmental-Uncertainty-and-Business-Strategy-on-Management-Accounting-System1.pdf

Archambault, J. J., & Archambault, M. E. (2003). A multinational test of determinants of corporate disclosure. *The International Journal of Accounting*, *38*, 173–194. doi: 10.1016/S0020-7063(03)00021-9

Arifin, J. (2014). *Isomorphic pressures influencing the level of mandatory disclosure within financial statements of Indonesian local governments* (Unpublished Doctoral dissertation). Curtin University, School of Accounting. Retrieved from https://espace.curtin.edu.au/bitstream/handle/20.500.11937/2046/213629_Arifin%202014.pdf?sequence=2&isAllowed=y

Austin P. C., & Steyerberg E. W. (2015). The number of subjects per variable required in linear regression analyses. *J Clinical Epidemiology*, *68*, 627-636. Retrieved from http://dx.doi.org/10.1016/j.jclinepi.2014.12.014

Azam, S. (2014). Perceived environmental factors and the intention to adopt a standard business reporting facility: A survey of Australian corporate CFOs. *Asian Academy of Management Journal of Accounting and Finance*, *10*(2), 147–173. Retrieved from http://eprints.usm.my/40027/1/AAMJAF_10-2-7_(147-173).pdf

Bala, S. K. (2018). Corporate Governance Code 2018 in Bangladesh: Reforms and revisions. *Monthly Review*, 24-35. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3215264

Bangladesh Bank. (2018, April-June). *Capital Market Developments in Bangladesh*. Retrieved from https://bb.org.bd/pub/quaterly/capital_market/apr-jun2018.pdf

Bangladesh Securities and Exchange Commission. (n.d.). Main Functions. Retrieved October 4, 2021, from https://www.sec.gov.bd/home/functions

Barakat, F. S. Q., Pérez, M. V. L., & Ariza, L. R. (2015). Corporate Social Responsibility Disclosure (CSRD) determinants of listed companies in Palestine (PXE) and Jordan (ASE). *Review of Management Science*, *9*(4), 681–702. Retrieved from https://link.springer.com/article/10.1007/s11846-014-0133-9

Barako, D. G., Hancock, P., & Izan, H. Y. (2006). Factors influencing voluntary corporate disclosure by Kenyan companies. *Corporate Governance: An*

International Review, *14*(2), 107 - 25. Retrieved from https://onlinelibrary.wiley.com/doi/10.1111/j.1467-8683.2006.00491.x

Beatite, V. (2000). The future of corporate reporting: A review article. *Irish Accounting Review*, *7*(1), 1-36. Retrieved from http://eprints.gla.ac.uk/829/1/Futcorprep.pdf

Bebbington, J., Higgins, C., & Frame, B. (2009). Initiating sustainable development reporting: Evidence from New Zealand. *Accounting, Auditing & Accountability Journal*, *22*(4), 588-625. doi:10.1108/09513570910955452

Belal, A. R., & Cooper, S. (2011). The absence of corporate social responsibility reporting in Bangladesh. *Critical Perspectives on Accounting*, *22*, 654-667. doi: 10.1016/j.cpa.2010.06.020

Belal, A. R., & Owen, D. L. (2007). The views of corporate managers on the current state of, and future prospects for social reporting in Bangladesh: An engagement based study. *Accounting, Auditing & Accountability Journal*, *20*(3), 472-494. doi: 10.1108/09513570710748599

Belal, A. R., & Roberts, R. W. (2010). Stakeholders' perceptions of corporate social reporting in Bangladesh. *Journal of Business Ethics*, *97*, 311-324. doi: 10.1007/s10551-010-0511-4

Bhattacharyya, A. (2014). Factors associated with the social and environmental reporting of Australian companies. *Australasian Accounting, Business and Finance Journal*, *8*(1), 25-50. Retrieved from https://ro.uow.edu.au/aabfj/vol8/iss1/3/

Bhattacharjee, S., & Islam, M. Z. (2009). Problems of adoption of International Financial Reporting Standards (IFRS) in Bangladesh. *International Journal of Business and Management*, *4* (12), 165-175. Retrieved from https://pdfs.semanticscholar.org/56b2/5323b1ec8ba6263c2a7ddd4156ffb9f4c51e.pdf

Birjandi, H., Hakemi, B., &Sadeghi, M. M. M. (2015). The study effect agency theory and signaling theory on the level of voluntary disclosure of listed companies in Tehran Stock Exchange Research. *Journal of Finance and Accounting*, *6*(1), 174-183. Retrieved from https://www.iiste.org/Journals/index.php/RJFA/article/view/19164/19696

Bishara, A. J., & Hittner, J. B. (2012). Testing the significance of a correlation with nonnormal data: Comparison of Pearson, Spearman, transformation, and resampling approaches. *Psychological Methods*, *17*, 399 – 417. doi: 10.1037/a0028087

Bitew, Z. (2015). *Corporate financial reporting and disclosure practices in Ethiopia* (Unpublished Executive MBA Thesis). Addis Ababa University, Ethiopia. Retrieved from https://scholar.google.com/scholar?q=Corporate+financial+reporting+and+disclosure+practices+in+Ethiopia&hl=en&as_sdt=0&as_vis=1&oi=scholart

Boolaky, P. K. (2004). Determinants of accounting standards in the Southern African Development Community (SADC). *Journal of Accounting Research*, 33-49.

Branson, J., & Muiz, A. A. (2011). The effect of environmental factors on accounting diversity. A literature review. *SSRN Electronic Journal*. doi.org/10.2139/ssrn.1780479

Buhr, N., & Freedman, M. (2001). Culture, institutional factors, and differences in environmental disclosures between Canada and the United States. *Critical Perspectives on Accounting*, *12*, 293 – 322. doi: 10.1006/cpac.2000.0435

Burlea, A. S., & Popa, I. (2013). Legitimacy Theory. In S. O. Idowu, N. Capaldi, L. Zu & A. D. Gupta (Eds.), *Encyclopedia of Corporate Social Responsibility*, 1579-1584. Springer-Verlag, Berlin Heidelberg. doi: 10.1007/978-3-642-28036-8_471

Bushman, R., Piotroski, J., & Smith, A. (2004). What determines corporate transparency? *Journal of Accounting Research*, *42* (2), 207-252. doi: 10.1111/j.1475679X.2004.00136.x

Černe, K. (2009). Influential factors of country's accounting system development. *Review Pregledni rad, 22*(2), 66-97. Retrieved from https://hrcak.srce.hr/38213

Chakroun, R., & Matoussi, H. (2012). Determinants of the extent of voluntary disclosure in the annual reports of the Tunisian firms. *Accounting and Management Information Systems*, *11*(3), 335–370. Retrieved from https://www.researchgate.net/publication/257526972_DETERMINANTS_OF_THE_EXTENT_OF_VOLUNTARY_DISCLOSURE_IN_THE_ANNUAL_REPORTS_OF_THE_TUNISIAN_FIRMS

Chapter 10 Variable Selection. (n.d.) Retrieved from https://www.biostat.jhsph.edu/~iruczins/teaching/jf/ch10.pdf

Chau, G., & Gray, S. J. (2002). Ownership structure and corporate voluntary disclosure in Hong Kong and Singapore. *The International Journal of Accounting*, *37*(2), 247-265. doi: 10.1016/S0020-7063(02)00153-X

Chittagong Stock Exchange. (n.d.). MILESTONES. Retrieved October, 2021, from https://www.cse.com.bd/about/inside_cse

Chittagong Stock Exchange. (n.d.). In Wikipedia. Retrieved October 24, 2021, from https://en.wikipedia.org/wiki/Chittagong_Stock_Exchange

Choi, F. D. S., & Mueller, G. G. (2011). *International Accounting.* New Jersey, NJ: Prentice-Hall.

Chowdhury, A. (2012). Harmonization of financial reporting and audit practices: Bangladesh perspective. *The Bangladesh Accountant*, *2*(1), 5-37.

Companies Act 1994. Retrieved from http://bdlaws.minlaw.gov.bd/act-details-788.html

Comyns, B. (2018). Climate change reporting and multinational companies: Insights from institutional theory and international business. *Accounting Forum*, *42*, 65-77. Retrieved from https://doi.org/10.1016/j.accfor.2017.07.003

Cooke, T. E. (1989). Disclosure in the corporate annual reports of Swedish companies. *Accounting and Business Research*, *19*(74), 113-124. doi: 10.1080/00014788.1989.9728841

Cooper, S. A., Raman, K. K., & Yin, J. (2018). Halo effect or fallen angel effect? Firm value consequences of greenhouse gas emissions and reputation for corporate social responsibility. *Journal of Accounting & Public Policy*, *37*, 226-240. doi: 10.1016/j.jaccpubpol.2018.04.003

Courtois, S., Gombart, C., Pignatel, I., & Brown, A. M. (2011). Multiple directorships and CAC-40 natural environmental disclosures. *Journal of the Asia-Pacific Centre for Environmental Accountability*, *17*(1), 28-45. Retrieved from https://unisa.edu.au/siteassets/episerver-6-files/global/business/centres/cags/docs/apcea/apcea_2011_171_courtois_etal.pdf

Daft, R. L. (2018). Summary Chapter 3: The Environment and Corporate Culture management, *Introduction to Management.* Boston, USA: Cengage Learning. Retrieved from https://www.studocu.com/en-nz/document/universitasairlangga/pengantar-manajemen/summaries/the-environment-and-corporate-culture/3232305/view

Das, A. K., & Chowdhury, N. (2012). Presentation of corporate financial reporting as a communication vehicle: An evaluative study of some listed companies in Bangladesh. *The Bangladesh Accountant*, July- September, 81-90.

Das, S., Dixon, R., & Michael, A. (2015). Corporate social responsibility reporting: A longitudinal study of listed banking companies in Bangladesh. *World Review of Business Research*, *5*(1), 130-154. Retrieved from http://www.csringreece.gr/files/research/CSR-1443616183.pdf

Das, S. (2017). The impact of corporate attributes on the extent of voluntary disclosure and reporting by listed companies in Bangladesh. *International Journal of Accounting and Business Finance*, *1*. Retrieved from https://ssrn.com/abstract=3030635

Das, S. (2015). *An investigation of corporate internet reporting in an emerging economy: a case study of Bangladesh* (Doctoral dissertation, University of Sunderland). Retrieved from https://core.ac.uk/download/pdf/74368395.pdf

Delmas, M., &Toffel, M. W. (2004). Stakeholders and environmental management practices: An institutional framework. *Business Strategy and the Environment*, *13*, 209-222. Retrieved from https://www.researchgate.net/publication/228809292_Stakeholders_and_Environmental_Management_Practices_An_Institutional_Framework

Dhaka Stock Exchange Limited. (n.d.). DSE at a glance. Retrieved October 3, 2021, from https://www.dse.com.bd/ilf.php

Dhaka Stock Exchange Limited. (n.d.). Function of DSE. Retrieved October 3, 2021, from https://www.dse.com.bd/ilf.php

Dhaka Stock Exchange Limited. (2017, July). *Monthly review*, 32(5).

Dye, R. A. (1986). Proprietary and nonproprietary disclosures. *Journal of Business*, *59*(2), 331-366. Retrieved from https://www.jstor.org/stable/2353023

Einhorn, E. (2005). The nature of the interaction between mandatory and voluntary disclosures. *Journal of Accounting Research*, *43*(4), 593-621. doi: 10.1111/j.1475-679X.2005.00183.x

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *The Academy of Management Review*, *14*(1), 57-74. doi: 10.2307/258191

Elijido-Ten, E. (2004, 4-6 July). *Determinants of environmental disclosures in a developing country: An application of the stakeholder theory.* Paper presented at the Fourth Asia Pacific Interdisciplinary Research in Accounting Conference, Singapore. Retrieved from https://researchbank.swinburne.edu.au/file/246da50e-5d6c-4aa2-b64a-da3a1d77699d/1/PDF%20(Published%20version).pdf

Elsayed, M. A. O. (2008). *Accounting disclosure for the stock market in Egypt: an international perspective* (Unpublished Doctoral Dissertation). La Trobe University, Australia.

Elsayed, M. O. & Hoque, Z. (2010). Perceived international environmental factors and corporate voluntary disclosure practices: An empirical study. *The British Accounting Review*, *42*, 17-35. doi:10.1016/j.bar.2010.01.001

Ern, S. Y., Abdullah, A., &Yau, F. S. (2016). Contingency factors influencing MAS design of manufacturing firms in Malaysia. *Asian Journal of Accounting and Governance*, *7*, 1–9. doi: 10.17576/AJAG-2016-07-01

Freeman, R. E., & Dmytriyev, S. D. (2017). Corporate social responsibility and stakeholder theory: Learning from each other. *Symphonya. Emerging Issues in Management, 2,* 7–15. doi: 10.4468/2017.1.02freeman.dmytriyev

Friedman, A., & Miles, S. (2006). *Stakeholders: Theory and practice*. Oxford, Oxford University Press: United Kingdom.

Frost, J. (n.d.). Model specification: Choosing the correct regression model [Blog post]. Retrieved from https://statisticsbyjim.com/regression/model-specification-variable-selection/

Galani, D., Alexandridis, A., & Stavropoulos, A. (2011). The association between the firm characteristics and corporate mandatory disclosure the case of Greece. *International Journal of Social, Management, Economics and Business Engineering, 5*(5). Retrieved from https://publications.waset.org/10904/pdf

Gallego-Alvarez, I., Lozano, M. B., & Rodriguez-Rosa, M. (2018). An analysis of the environmental information in international companies according to the new GRI standards. *Journal of Cleaner Production, 182*, 57-66. doi: 10.1016/j.jclepro.2018.01.240

Gao, L., & Kling, G. (2012). The impact of corporate governance and external audit on compliance to mandatory disclosure requirements in China. *Journal of Accounting, Auditing and Taxation, 21*(1), 17-31. doi: 10.1016/j.intaccaudtax.2012.01.002

Gerhardy, P. G. (2003). An extended contingency model of environmental factors influencing national accounting and disclosure practices. *Korea Accounting Information Association.* Retrieved from: https://www.semanticscholar.org/paper/1-An-Extended-Contingency-Model-of-Environmental-Gerhardy/eae942200e1a7c12af541bd32b6d947c79c11b23

Gibbins, M., Richardson, A., & Waterhouse, J. (1990). The management of Corporate Financial Disclosure: Opportunism, Ritualism, policies, and Processes. *Journal of Accounting Research*, *28*(1), 121-143. doi: 10.2307/2491219

Glaum, M., & Street, D. L. (2003). Compliance with the disclosure requirements of Germany's new market: IAS versus US GAAP. *Journal of International Financial Management & Accounting*, *14*(1), 64-100. doi: 10.1111/1467-646X.00090

Grüning, M. (2007). Drivers of corporate disclosure: a structural equation analysis in a Central European setting. *Management Research* News, *30*(9), 646-660.Retrieved from https://www.researchgate.net/publication/235310929_Drivers_of_corporate_disclosure_a_structural_equation_analysis_in_a_Central_European_setting

Hang, L. N. M. (2016). An evaluation of corporate environmental disclosures by Vietnamese listed firms. Retrieved from http://veam.org/wp-content/uploads/2016/08/2015_60__Hang_Le__An_evaluation_of_corporate_environmental_disclosures_by_Vietnamese_listed_firms.pdf

Haniffa, R. M., & Cooke, T. E. (2002). Culture, corporate governance and disclosure in Malaysian corporations, *ABACUS*, *38* (3), 317-349. doi: 10.1111/1467-6281.00112

Hasan, M. S., & Hossain, S. Z. (2013). Corporate attributes and financial disclosures: Bangladesh experience. *ICAN Journal of Accounting and Finance*, *2*(1), 31-43.

Hasan, M. T., & Hosain, M. Z. (2015). Corporate mandatory and voluntary disclosure practices in Bangladesh: Evidence from listed companies of Dhaka Stock Exchange. *Research Journal of Finance and Accounting*, *6*(12),14-32.

Retrieved from https://www.iiste.org/Journals/index.php/RJFA/article/view/23363/24253

Hasan, T., Karim, W., & Quayes, S. (2008). Regulatory change and the quality of compliance to mandatory disclosure requirements: Evidence from Bangladesh. *Research in Accounting Regulation*, *20*, 193-203. doi: 10.1016/S1052-0457(07)00211-1

Hassan, O., Giorgioni, G., & Romilly, P. (2006). The extent of financial disclosure and its determinants in an emerging capital market: The case of Egypt. *International Journal of Accounting, Auditing and Performance Evaluation*, *3*(1), 41-67. doi:10.1504/IJAAPE.2006.010102

Healy, P. M., & Palepu, K. G. (2001). Information asymmetry, corporate disclosure, and the capital markets: A review of the empirical disclosure literature. *Journal of Accounting and Economics*, *31*, 405-440. doi: 10.1016/S0165-4101(01)00018-0

Hossain, D. M. A. (2006, 17 – 19 September). *Disclosure level and compliance with IASs of non-financial companies in an emerging economy: A study Bangladesh.* Paper presented in the Asian Academic Accounting Association Conference, Sydney. Retrieved from https://www.academia.edu/8030723

Hossain, M. A., & Hossain, M. M. (2010). A Review of corporate financial reporting regulations in Bangladesh, *BUBT Journal*, 3, 175-187.

Hossain, M. M., Alam, M., Hecimovic, A., Hossain, M. A., &Lema, A. C. (2016). Contributing barriers to corporate social and environmental responsibility practices in a developing country: A stakeholder perspective. *Sustainability Accounting, Management and Policy Journal*, *7*(2), 319-346. doi: 10.1108/SAMPJ-09-2014-0056

Hossain, M., & Hammami, H. (2009). Voluntary disclosure in the annual reports of an emerging country: The case of Qatar. *Advances in Accounting, incorporating Advances in International Accounting*, *25*(2), 255–265. Retrieved from https://www.sciencedirect.com/science/article/abs/pii/S0882611009000315?via%3Dihub

Hossain, M. K., Niaz, A. Z. M., & Moudud-Ul-Huq, S. (2015). The application and disclosures of IASs & IFRSs by the DSE listed companies of Bangladesh. *World Journal of Social Sciences*, *5*(3), 157-258. Retrieved from https://www.researchgate.net/profile/Syed-Moudud-Ul-Huq/publication/283568044_The_Application_and_Disclosures_of_IASs_IFRSs_by_the_DSE_Listed_Companies_of_Bangladesh/links/563f5ade08ae45b5d28d2dec/The-Application-and-Disclosures-of-IASs-IFRSs-by-the-DSE-Listed-Companies-of-Bangladesh.pdf

Huiyun, L., & Peng, Z. (2011). A Study of Factors Influencing Voluntary Disclosure of Chinese Listed Companies. *Proceedings of the sixth international symposium of corporate governance M&D Forum*, 245-257.

Hutaibat, K., Alberti, L. V., & Al-Htaybat, K. (2011). The extent of listed manufacturing companies' compliance with mandatory requirements: evidence of IAS- lite from Jordan. *Jordan Journal of Business Administration*, *7*(4), 709-736. Retrieved from https://journals.ju.edu.jo/JJBA/article/view/2731/2446

Iatridis, G. (2008). Accounting disclosure and firms' financial attributes: evidence from the UK stock market. *International Review of Financial Analysis*, *17*, 219 -241. doi:10.1016/j.irfa.2006.05.003

iEduNote. (n.d.). Internal and external environment factors that influences organizational decision making. Retrieved on 27.10.19 from https://www.iedunote.com/organizational-environment-elements

Income Tax Ordinance 1984. Retrieved from https://nbr.gov.bd/uploads/acts/25.pdf

Islam, M. A. (2009). *Social and Environmental Reporting Practices of Organizations Operating in, or Sourcing Products from, a Developing Country: Evidence from Bangladesh* (Doctoral dissertation). RMIT University, Australia. Retrieved from https://www.researchgate.net/publication/263855278

Islam, M. A., & Deegan, C. (2008). Motivations for an organisation within a developing country to report social responsibility information Evidence from Bangladesh. *Accounting, Auditing & Accountability Journal*, *21*(6), 850-874. doi: 10.1108/09513570810893272

Islam, M. A., & Dellaportas, S. (2011). Perceptions of corporate social and environmental accounting and reporting practices from accountants in Bangladesh. *Social responsibility journal*, *7*(4), 649-664. Retrieved from https://www.researchgate.net/publication/235252150_Perceptions_of_corporate_social_and_environmental_accounting_and_reporting_practices_from_accountants_in_Bangladesh

Jaggi, B., & Low, P. Y. (2000). Impact of culture, market forces and legal system on financial disclosure. *The International Journal of Accounting*, *35*(4), 495-519. doi:10.1016/S0020-7063(00)00076-5

Jain, P. (2011). IFRS Implementation in India: Opportunities and challenges. *World Journal of Social Sciences*,*1*(1), 125-136. Retrieved from https://www.researchgate.net/publication/228435057_IFRS_Implementation_in_India_Opportunities_and_Challenges

Khan, I., Chand, P. V., & Patel, A. (2013). The impact of ownership structure on voluntary corporate disclosure in annual reports: Evidence from Fiji. *Accounting & Taxation, 5*(1), 47-58. Retrieved from https://ssrn.com/abstract=2210059

Khan, A., Muttakin, M. B., & Siddiqui, J. (2013). Corporate governance and corporate social responsibility disclosures: Evidence from an emerging economy. *Journal of Business Ethics, 114*, 207- 223. doi: 10.1007/s10551-012-1336-0

Kothari, S. P. (2000). The role of financial reporting in reducing financial risks in the market. *Proceedings of the Conference Series, Federal Reserve Bank of Boston*, 44(Jun), 89-112. Retrieved from https://ideas.repec.org/a/fip/fedbcp/y2000ijunp89-112n44.html

Lan, Y., Wang, L., & Zhang, X. (2013). Determinants and features of voluntary disclosure in the Chinese stock market. *China Journal of Accounting Research*, *6*(4), 265-285. doi:10.1016/j.cjar.2013.04.001

Lang, M., & Lundholm, R. (1993). Cross-Sectional determinants of analyst ratings of corporate disclosures. *Journal of Accounting Research, 31*(2), 246-271. doi:10.2307/2491273

List of International Financial Reporting Standards. (n.d.). In Wikipedia. Retrieved October 20, 2009, from https://en.wikipedia.org/wiki/List_of_International_Financial_Reporting_Standards

Maharani, S., & Siregar, S. V. (2011). Corporate governance, financial reporting quality, and investment efficiency.*Paper presented at the Asian-Pacific Conference on International Accounting Issues*, At Shangri-La Hotel, Beijing

– China. Retrieved from https://www.researchgate.net/publication/283494985_Corporate_Governance_Financial_Reporting_Quality_and_Investment_Efficiency

Mardini, G. H., Tahat, Y. A., & Power, D. M. (2013). Determinants of segmental disclosures: evidence from the emerging capital market of Jordan. *International Journal of Managerial and Financial Accounting*, *5*(3), 253–276. doi: 10.1504/IJMFA.2013.058549

Mateescu, R. A. (2015). Corporate governance disclosure practices and their determinant factors in European emerging countries. *Journal of Accounting and Management Information Systems*, *14*(1), 170-192. Retrieved from https://www.semanticscholar.org/paper/Corporate-Governance-Disclosure-Practices-and-Their-Mateescu/5fb137079c5b1691888c4ad93a48c3872a79472a

Mirshekary, S. (1999). *An empirical investigation of the quality of disclosure in corporate financial reports in developing countries: The case of Iran* (Doctoral dissertation). University of Wollongong, retrieved from https://ro.uow.edu.au/theses/1014/

Mirshekary, S., & Saudagaran, S. M. (2005). Perceptions and characteristics of financial statement users in developing countries: evidence from Iran. *Journal of International Accounting, Auditing and Taxation*, *14*(1), 33-54. doi:10.1016/j.intaccaudtax.2005.01.001

Mokhtar, E. S. (2010). *Investigating risk reporting practices in Egypt* (Unpublished Doctoral dissertation). Cardiff University, UK. Retrieved from http://orca.cf.ac.uk/55461/1/U516848.pdf

Morris, R. D., & Gray, S. J. (2007, July). *Corporate transparency differences in the Asian region: The feasibility of global standardization in practice.* Paper presented at the AFAANZ Conference, Gold Coast, Australia. Retrieved from https://www.researchgate.net/publication/237134951_Corporate_Transparency_Differences_in_the_Asian_Region_the_Feasibility_of_Global_Standardization_in_Practice

Morris, R., Susilowati, I., & Gray, S. (2012). *The impact of IFRS adoption versus non-adoption on corporate disclosure levels in the Asian region* (Working paper). Paper presented at the American Accounting Association Annual Meeting and Conference on Teaching and Learning in Accounting, Washington DC.

Mousa, G. A., & Hassan, N. T. (2015). Legitimacy theory and environmental practices: Short notes. *International Journal of Business and Statistical Analysis*, *2*(1), 41-53. Retrieved from https://pdfs.semanticscholar.org/1895/305329d2fd0c4e26f5a7641ce148a233732c.pdf

Mutawaa, A. A., & Hewaidy, A. M. (2010). Disclosure level and compliance with IFRSs: An empirical investigation of Kuwaiti companies. *International Business & Economics Research Journal (IBER)*, *9*(5), 33-50. doi: 10.19030/iber.v9i5.566

Muttakin, M. B. (2012). *Family firms, board structure, political connections and performance: Evidence from Bangladesh* (Doctoral dissertation). Deakin University.

Muttakin, M. B., Khan, A., & Subramaniam, N. (2015). Firm characteristics, board diversity and corporate social responsibility: evidence from Bangladesh. *Pacific Accounting Review, 27*(3), 353-372. doi:10.1108/PAR-01-2013-0007

Ninety percent companies don't submit financial statements: World Bank. (2015, October 26). *The Daily Prothom Alo*.

Nobes, C. (1998). Towards a general model of the reasons for international differences in financial reporting. *ABACUS,34* (2),162-187. doi: 10.1111/1467-6281.00028

Nogueira, S. P. S., & Jorge, S. M. F. (2016). Explanatory factors for the use of the financial report in decision-making: Evidence from local government in Portugal. *Spanish Accounting Review, 19* (2), 216-226. doi: 10.1016/j.rcsar.2015.09. 002

Norwani, N. M., Mohamad, Z. Z., & Chek, I. T. (2011). Corporate governance failure and its impact on financial reporting within selected companies. *International Journal of Business and Social Science*, *2*(21), 205-213. Retrieved from https://ijbssnet.com/journals/Vol_2_No_21_Special_Issue_November_2011/23.pdf

Nurunnabi, M. (2012). *The role of the state in implementing IFRSs in a developing country: The case of Bangladesh* (Unpublished Doctoral dissertation). The University of Edinburgh Business School, Scotland. Retrieved from https://era.ed.ac.uk/handle/1842/7843

Nurunnabi, M., & Hossain, M.A. (2012). The voluntary disclosure of Internet Financial Reporting (IFR) in an emerging economy: A case of digital Bangladesh. *Journal of Asia Business Studies*, *6*, 17-42. doi: 10.1108/15587891211190688

Nurunnabi, M. (2015). Tensions between politico institutional factors and accounting regulation in a developing economy: Insights from institutional theory. *Business Ethics: A European Review*, *24*(4), 398–424. doi: 10.1111/beer.12089

Omar, B., & Simon, J. (2011). Corporate aggregate disclosure practices in Jordan. *Advances in Accounting, Incorporating Advances in International Accounting*, *27*, 166 –186. doi: 10.1016/j.adiac.2011.05.002

Omran, M. A., & El-Galfy , A. M. (2014). Theoretical perspectives on corporate disclosure: A critical evaluation and literature survey. *Asian Review of Accounting*,*22*(3), 257-286. doi: 10.1108/ARA-01-2014-0013

Overfelt, W. V., Deloof, M., & Vanstraelen, A. (2009). Determinants of corporate financial disclosure in an unregulated environment: Evidence from the early 20th century. *European Accounting Review*, *19*, 7-34. doi: 10.2139/ssrn.1099860

Ovi, I. H., & Mahmud, N. (2018, May 14). DSE signs strategic partnership agreement with Chinese consortium. *Dhaka Tribune*. Retrieved from https://www.dhakatribune.com/business/stock/2018/05/14/dse-signs-strategic-partnership-agreement-with-chinese-consortium

Owusu-Ansah, S. (2005). Factors influencing corporate compliance with financial reporting requirements in New Zealand. *International Journal of Commerce and Management*, *15*(2), 141-157. doi:10.1108/10569210580000193

Oyewo, B., (2017). Predictors of the effectiveness of management accounting function in Nigerian firms. *Scientific Annals of Economics and Business*, *64*(4), 487-512. doi: 10.1515/saeb-2017-0026

Pek, J., Wong, O., & Wong, A. C. M. (2018). How to address non-normality: A taxonomy of approaches, reviewed, and illustrated. *Frontiers in Psychology*, *9*, 2104. doi: 10.3389/fpsyg.2018.02104

Pham, H. H. (2012). *A comparative study of Vietnamese and international accounting standards* (Doctoral dissertation). Curtin University, Australia. Retrieved from https://espace.curtin.edu.au/bitstream/handle/20.500.11937/1996/192069_Pham2013.pdf?sequence=2&isAllowed=y

Popova, T., Georgakopoulos, G., Sotiropoulos, I., &Vasileiou, K. Z. (2013). Mandatory disclosure and its impact on the company value. *International Business Research*, *6*(5), 1-16. doi:10.5539/ibr.v6n5p1

Quraishi, M. K., & Islam, M. S. (2014). The adoption of IAS/IFRS in a developing country – a case of Bangladesh. *Elk Asia Pacific Journal of Finance and Risk Management*, *5* (3). Retrieved from https://www.elkjournals.com/MasterAdmin/UploadFolder/The%20Adoption%20of%20IASIFRS-2-3/The%20Adoption%20of%20IASIFRS-2-3.pdf

Rahman, M. (2014). Ownership concentration and corporate disclosure in Bangladesh. doi:10.2139/ssrn.2435108

Rubensen, J., & Schagerlind, T. (2014). *Country-specific differences in disclosure compliance: A quantitative study comparing the compliance degree of paragraph 134 in IAS 36 Impairment of Assets in Sweden and the United Kingdom* (Master's thesis). University of Goethenburg, School of Business, Economics & Law, Sweden. Retrieved from https://core.ac.uk/download/pdf/43556032.pdf

Saha, S. (2012). *Stock market crash of Bangladesh in 2010-11: Reasons & roles of regulators* (Degree Thesis). International Business. Arcada University of

Applied Sciences, Helsinki, Finland. Retrieved from https://www.theseus.fi/bitstream/handle/10024/47195/saha_sangit.pdf

Saudagaran, S. M., & Diga, J. G. (1999). Evaluation of the contingency based approach in comparative international accounting: A case for alternative research paradigms. *Journal of Accounting Literature*, *18*, 57-95. Retrieved from https://www.proquest.com/openview/4e629cb36c07a1be2637c2ea28869a8b/1?pq-origsite=gscholar&cbl=31366

Shahzadi. S., Khan. R., Toor, M., & Haq, A. (2018). Impact of external and internal factors on management accounting practices: A study of Pakistan. *Asian Journal of Accounting Research*, 211-223. doi: 10.1108/AJAR-08-2018-0023

Schipper, K. (2005). The introduction of International Accounting Standards in Europe: Implications for international convergence. *European Accounting Review*, *14*(1), 101–126. doi: 10.1080/0963818042000338013

Siddiqui, J. (2018, February 03), Making Financial Reporting Council functional. *The Financial Express.* Retrieved from https://thefinancialexpress.com.bd/views/making-financial-reporting-council-functional-1517669468

Sobhani, F. A., Amran, A., & Zainuddin, Y. (2009). Revisiting the practices of corporate social and environmental disclosure in Bangladesh. *Corporate Social Responsibility and Environmental Management*, *16*(3), 167–183. doi: 10.1002/csr.193

Sobhani, F. A., Zainuddin, Y., & Amran, A. (2011). Religion as an emerging institutional factor behind sustainability disclosure practices in Bangladesh: The case of an Islamic Bank. *World Journal of Social Sciences, 1*(1), 69-85.

Retrieved from https://www.academia.edu/2872591/Religion_as_an_Emerging_Institutional_Factor_behind_Sustainability_Disclosure_Practices_in_Bangladesh_The_Case_of_an_Islamic_Bank

Sochi, M. H. (2016). Association between firm characteristics and financial disclosure: Evidence from companies listed in Dhaka Stock Exchange. *The Cost and Management Journal*, *44*(5), 11-20.

Solomon, A., &Lewis, L. (2002). Incentives and disincentives for corporate environmental disclosure. *Business Strategy & the Environment*, *11*(3), 154-169. doi:10.1002/bse.328

Solomon, S. R., & Sawilowsky, S. S. (2009). Impact of rank-based normalizing transformations on the accuracy of test scores. *Journal of Modern Applied Statistical Methods*, *8*(2), 448 – 462. Retrieved from https://digitalcommons.wayne.edu/cgi/viewcontent.cgi?article=1004&context=coe_tbf

Sufian, M. A. (2012). Corporate social responsibility disclosure in Bangladesh. *Global Journal of Management and Business Research*, *12*(14), 148-155. Retrieved from https://journalofbusiness.org/index.php/GJMBR/article/view/781/710

Sufian, M. A. (2016). The quality of mandatory disclosure by listed companies in Bangladesh. *Journal of Finance and Accounting*,*4*(4), 194-201. doi: 10.11648/j.jfa.20160404.15

The Aries Group Limited. (2015). *Bangladesh: Third Capital Market Development Program (CMDP III)*.Financed by the Technical Assistance Special Funds, presented to Asian Development Bank. Retrieved from https://www.adb.org/sites/default/files/project-document/184428/45253-001-tacr-01.pdf

The Institute of Chartered Accountants of Bangladesh. (n.d.). The Institute - A brief outline. Retrieved October 4, 2021, from http://www.icab.org.bd/icabweb/webGeneralContent/view/14245

The Registrar of Joint Stock Companies. (n.d.). History, Mission, vision, Functions. Retrieved October 4, 2021, from http://www.roc.gov.bd/site/page/b0796bbc-0e93-4b9a-8c0d-96667d869188/-

Thomas, A. P. (1986). The contingency theory of corporate reporting: Some empirical evidence. *Accounting, Organizations and Society*, 11(3), 253-270. Retrieved from http://www.sciencedirect.com/science/article/pii/0361-3682(86)90024-3

Thomas, A. P. (1991). Towards a contingency theory of corporate financial reporting systems. *Accounting, Auditing & Accountability Journal, 4*(4). doi: 10.1108/EUM0000000001933

Uddin, M. A., & Safiuddin, M. (2015). Narrative reporting disclosures: A Study of selected companies listed in Dhaka Stock Exchange. *The Cost and Management*, *43*(5), 41-50.

Umoren, A. (2008). *Accounting disclosures and corporate attributes: A study of tested Nigerian companies* (Doctoral dissertation). Covenant University, Nigeria.

Uyar, A., Kilic, M., & Bayyurt, N. (2013). Association between firm characteristics and corporate voluntary disclosure: Evidence from Turkish listed company. *Intangible Capital, IC,9*(4), 1080-1112. doi: 10.3926/ic.439

Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, *32*, 97-180. doi: 10.1016/S0165-4101(01)00025-8

Vlachos, C. (2001). *An empirical investigation of the financial disclosure practices of Cypriot and Greek companies* (Doctoral dissertation).Middlesex University, London, England. Retrieved from https://eprints.mdx.ac.uk/6722/

World Bank. (2003, May 16). Bangladesh - Report on the Observance of Standards and Codes (ROSC): Accounting and Auditing. Washington, DC: World Bank. Retrieved form https://documents1.worldbank.org/curated/en/525841468199791766/pdf/350160BD0Accounting0rosc1aa1bgd.pdf

World Bank. (2015, March 05). Bangladesh - Report on the Observance of Standards and Codes (ROSC): *Accounting and Auditing.* Washington, D.C.: World Bank Group. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/25727/96307-ROSC-P149852-OUO-9-Box391449B-ACS.pdf?sequence=1&isAllowed=y

2019 worst year for stocks after ’10 crash. DSEX loses 16.73pc as investors’ confidence hits bottom. (2019, December 31). *New Age Business*. Retrieved from https://www.newagebd.net/article/95096/2019-worst-year-for-stocks-after-10-crash

APPENDICES

Appendix 2.1

List of IASs and IFRSs (till 2016)

IAS No.	Title
1	Presentation of Financial Statements
2	Inventories
7	Statement of Cash Flows
8	Accounting Policies, Changes in Accounting Estimates and Errors
10	Events after the Reporting Period
11	Construction Contracts
12	Income Taxes
16	Property, Plant & Equipment
17	Leases
18	Revenue
19	Employee Benefits
20	Accounting of Government Grants and Disclosure of Government Assistance
21	The Effects of Changes in Foreign Exchange Rates
23	Borrowing Costs
24	Related Party Disclosures
26	Accounting and Reporting by Retirement Benefit Plans
27	Separate Financial Statements
28	Investments in Associates and Joint Ventures
29	Financial Reporting in Hyperinflationary Economics
32	Financial Instruments: Presentation
33	Earnings per Share
34	Interim Financial Reporting
36	Impairment of Assets
37	Provisions, Contingent Liabilities and Contingent Assets
38	Intangible Assets
39	Financial Instruments: Recognition and Measurement
40	Investment Property
41	Agriculture
IFRS	**Title**
1	First-time adoption of International financial Reporting Standards
2	Share-based Payment
3	Business Combinations
4	Insurance Contracts
5	Non-current Assets Held for Sale and Discontinued Operations
6	Exploration for and Evaluation of Mineral Resources
7	Financial Instruments: Disclosures
8	Operating Segments
9	Financial Instruments
10	Consolidated Financial Statements
11	Joint Arrangements
12	Disclosure of Interests in other Entities
13	Fair Value Measurement

Note. Adapted from"List of International Financial Reporting Standards" by Wikipedia(https://en.wikipedia.org/wiki/List_of_International_Financial_Reporting_Standards) Retrieved on 20.10.21

Appendix 4.1

Letter of Informed Consent

Title of the Research Study: Determinants of Corporate Disclosures: A Study on the Listed Manufacturing Companies in Bangladesh.

PhD Research Supervisor: Professor Dr. Mahmuda Akter, Department of Accounting & Information Systems, University of Dhaka, Bangladesh

Research Interviewer: Kazi Naeema Binte Faruky (PhD student, Department of Accounting & Information Systems, University of Dhaka, Bangladesh)

Dear Participant,

Thank you very much for your kind consent to be interviewed for this particular research project. We sincerely hope that both of us will have a rewarding and valuable experience in this process. Before you decide to participate in this study, it is important that you understand why the research is being carried out and what it will involve. Please read the following information carefully. Kindly feel free to ask the researcher if you need further clarification or more information regarding any issues mentioned.

Procedures and Purpose

This research is concerned with various aspects related to the determinants of corporate disclosure practices in Bangladesh. In particular, we are interested in studying the extent, association, and factors related to voluntary and mandatory forms of disclosure in the annual reports of the listed manufacturing companies in Dhaka Stock Exchange (DSE). This research will contribute to the researcher's completion of PhD degree. The interview will hopefully require around 1 hour of your time. During this time, you will be interviewed about topics relevant to the corporate disclosure practices in Bangladesh. The interviews will be conducted by direct conversation and your responses shall be noted via usual paper-based protocols.

Risks

There are no anticipated risks or discomforts related to this research. The person interviewing you, however, can ask some private information regarding your experience which you may reveal if you wish. If you do not deem it appropriate, you may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

Benefits of Participation
Your participation in this research interview is completely voluntary. By participating in this research, you may also benefit others by helping professionals in industry to understand the determinants of corporate disclosure better and implement the best practices more soundly.
Confidentiality
The information and responses that we receive from the interviews shall be strictly anonymous. We will make every effort to ensure the strictest confidentiality and privacy of all interviews.

To ensure confidentiality, the following measures shall be undertaken:

I. We shall assign code names/numbers for participants that will be used on all research notes and documents.
II. We shall preserve the notes, interview transcriptions, and any other identifying participant information in the personal possession of the researcher.
III. We shall destroy all information after five years of the publication of the research.

Contact Information
If you have any question or concern about this study or after its completion or if you would like to receive a copy of the final aggregate results of this study, please contact ………………… or kbintefaruky@gmail.com

Consent
I, hereby, certify that I have read and I understand the information provided and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without stating a reason. I understand that I will be given a copy of this consent form.

Participant's signature:

[Name and Designation of the Participant]

Date:

Interviewer's signature:

Date:

Appendix 4.2

Interview Questions

The following semi-structure (open ended) questions have been used to guide the in depth discussion in the interview;

1. According to the previous literature 'the level of disclosure among the listed manufacturing companies in Bangladesh is not satisfactory'.What is your opinion about this statement regarding the overall annual report disclosure practice among the listed companies in Bangladesh?
2. What are the major causes of the poor disclosures (or barriers of disclosures) in the annual reports by the listed manufacturing companies in Bangladesh?
3. What are the factors that motivate the disclosure practice of listed manufacturing companies in Bangladesh?/ What factors do you consider to be helpful to improve the disclosure situation in Bangladesh?

Appendix 4.3

Questionnaire

The Questionnaire(Please Keep it CONFIDENTIAL and use only for giving your opinion)

The title of the research is 'Determinants of Corporate Disclosure: A Study on the Listed Manufacturing Companies in Bangladesh'.
My supervisor is Professor Dr. Mahmuda Akter, Department of Accounting & Information Systems, University of Dhaka, Bangladesh

The purpose of this study is to identify the factors that affect the disclosure practice of listed manufacturing companies in Bangladesh. To achieve this purpose, the study addresses the following issues:

1. To determine the level of mandatory disclosure by the listed manufacturing companies in Bangladesh
2. To determine the level of voluntary disclosure by the listed manufacturing companies in Bangladesh
3. To identify the factors those affect the disclosure practices of the listed manufacturing companies in Bangladesh

As this study is about accounting disclosure for listed manufacturing companies in Bangladesh, the distribution of questionnaires is restricted to Chief Financial Officer (CFO), Company Secretary or any person responsible for the preparation of annual report of the listed manufacturing companies in the Dhaka Stock exchange. The information collected in this survey will be kept confidential and only be used for the research purpose. Name of the respondent and the representing company will not be mentioned in the paper.
For any queries about the researcher, you may contact Prof. Dr. Mahmuda Akter,(supervisor of my PhD thesis) Department of Accounting & Information Systems, University of Dhaka, Prof. Mamtaz Uddin Ahmed, Department of Accounting & Information Systems, University of Dhaka, Prof. Dr. Swapan Kumar Bala, Commissioner of BSEC, Professor of Department of Accounting & Information Systems, University of Dhaka.
N.B. If you have any query about the questionnaire , please contact me at : Kazi Naeema Binte Faruky :…….

Part-A) **Personal Profile: [Company name:……………………………………]**

1. Your name (optional):

2. Your present position:

3. Your previous position:

4. Length of employment (Please specify*)*:

□ Within this department:	□ In current position:

5. Level of education (please tick √):

□ CA	□ CMA
□ MBA/M.Com	□ Other (please specify*)*

6. Professional membership (if any, Please specify):

7. Your Gender (please tick √):

□ Male	□ Female

8. Your age group (please tick √):

□ 20- 29	□ 30- 39
□ 40- 49	□ 50 or over

9.Qualification of Chief Financial Officer (CFO) of your organization:

<u>Part-B) Perceived Influence of Institutional (external) Factors on Disclosure of Accounting Information:</u>

A list of some **external factors** that may affect the disclosure of corporate information in the annual report of your company is given below:
1. Monitoring and supervision by BSEC (for complying with SEC rules, IAS and Companies Act)
2. External Shareholders' awareness for information
3. Media awareness (News paper, online news portal etc.)
4. Trade Associations' (FBCCI/DCCI etc.) demand
5. Receiving Award (from ICAB, ICMAB, SAFA) in order to have a good corporate image
6. Information demand from the Tax Authority

Please fill up the following table by indicating the extent **(5** or **4** or **3** or **2** or **1)** to which **each of the above factors affects** your organization's accounting disclosure practice:

5 =**to a very great extent**;
4 = **to a large extent**;
3 =**to a moderate extent**;
2 =**to some extent**;
1= **to a little or no extent**.

Disclosure Area in Annual Report	BSEC	External Shareholders	Media	Trade Asso. (FBCCI/ DCCI)	Award (ICAB/ICMAB)	Tax Authority
Mandatory Disclosure						
1. General information (mandatory)						
2.Statement of Fin. Position						
3.Statement of Profit or Loss and other comprehensive income						
4. Statement of changes in equity						
5.Accounting Policies						
6.Director's Report						
7. Cash flow statement						
8. Other explanatory notes						
9. Ratio Analysis						
Voluntary Disclosure						
10. General information (voluntary)						
11. Environment						
12. Human resources						
13.Products						
14.Community Involvement						
15. Graphs, charts, pictorial data						
16. Value added statement						

Appendix 4.4

Mandatory Disclosure Checklist

Serial No.	Disclosure Details
Part 1	**Company Profile Items**
1.	A brief description of nature and principal activities of the company and its subsidiaries
2.	Country and year of incorporation
3.	Location of factories and offices
4.	List of directors/Directors profile
5.	Education and experience of directors
6.	Outside affiliation of the directors
7.	Any family relationship among directors or stating that there is no such relation
8.	Names of top employees, line of authority (CFO, CS etc.)
9.	Members of audit committee
10.	Types of shareholders (foreign, individual. Sponsors etc)
11.	Credit rating
12.	Authorization date for issuing the Financial Statements and who gave the authorization
13.	Number of employees
14.	Classification of employees as permanent and part time
15.	Capacity of industrial unit and actual production (%)
16.	Causes of variances between capacity and actual production
Part 2	**Directors Report Items**
1.	Industry outlook and future development
2.	Material changes and commitment affecting the financial position of the company
3.	Capital expenditure commitments or the fact that there is no such commitment
4.	Amount proposed to carry to any reserve
5.	Product wise performance
6.	Recommended dividend (if not declared , reasons are given)
7.	Risks and concerns (steps taken to manage such risk)
8.	Cost of goods sold, gross profit margin and net profit margin
9.	Utilization of raised fund from public, right issue & any other instrument
10.	Remunerations to the directors
11.	Basis for related party transactions
12.	Appointment /reappointment of directors
13.	Financial statements prepared by the management present fairly the company's state of affairs
14.	Proper Books of accounts have been maintained
15.	Appropriate accounting policies were applied and accounting estimates are based on reasonable and prudent judgment
16.	IAS/BAS/IFRS/BFRS have been followed and any departure from this adequately disclosed
17.	Sound Internal control system implemented
18.	Going concern basis is followed
19.	Significant deviation in current year's operating result from last year is explained
20.	Key operating and financial data for preceding five years
21.	Number of board meetings and attendance of directors
22.	Shareholdings pattern by directors, CEO, CFO, CS, Head of internal audit and their spouses and minor children
23.	Shareholding pattern by executives
24.	Shareholding pattern by shareholders holding more than 10% of voting interest
Part 3	**Balance Sheet/Statement of Financial Position Items**
1.	Property, plant & equipment
2.	Investments in projects under construction / Capital work in process/progress
3.	Investments / Financial assets (long term investment in share/debenture/bond in related or other companies, in govt. or local authority)
4.	Intangible assets
5.	Inventories

6.	Trade and other receivables/debtors
7.	Advances, deposits and prepayments
8.	Cash and cash equivalent
9.	Share capital
10.	Reserves (general reserve, capital reserve, share premium etc)
11.	Retained earnings
12.	Loans/ borrowings/bank overdraft (long/short)
13.	Liabilities for tax (current tax, deferred tax)
14.	Trade and other payables (suppliers, Subsidiaries, Associate Companies /Inter- company balances, unclaimed dividend , dividend payable, etc)
15.	Liabilities for expenses/Accruals
16.	Provision/Liabilities for other finance (contributory provident fund, bad debt, WPPF etc)
17.	Contingent liabilities (if any)
18.	Net Asset value per share
Part 4	**Statement of Profit or Loss and Other Comprehensive income Items**
1.	Net Operating revenues
2.	Cost of goods sold/cost of sales
3.	Major Operating expenses (Administrative, selling & distribution)
4.	Other operating income (if any)
5.	Operating Profit/Profit from Operation
6.	Finance income/finance expenses (with notes)
7.	Non-operating income (revenues/ gains and expenses/losses from non operating sources like Interest income, Investment income gains or losses of disposal of assets)
8.	Provision for/contribution to/expense for WPPF, other staff benefit
9.	Income tax expenses (Current tax / Deferred tax expense)
10.	Net profit or loss after tax
11.	Earnings per share(Basic earnings, diluted earnings)
12.	Earnings per share (Diluted earnings)
Part 5	**Statement of Changes in equity**
1.	Beginning and ending balance of share capital, reserves, share premium retained earnings with adjustments
2.	Beginning and ending balance of reserves, share premium with adjustments
3.	Beginning and ending balance of retained earnings with adjustments
Part 6	**Cash Flow Statement Items**
1.	Cash flows from operating activities is calculated by Direct Method
2.	Cash receipts from sale of goods and other income
3.	Cash payment to suppliers, employees and others
4.	Cash paid for Tax/tax deducted at source/advance tax/tax holiday
5.	Cash flows (receipt/pay)from long term assets (PPE, investment etc)
6.	Cash flows (receipt/pay) from interest and dividend
7.	Cash flows (receipt/pay) for loans and advances
8.	Reconciliation of opening and closing balances at the balance sheet date
9.	NOCFPS
10.	NOCFPS/EPS
Part 7	**Accounting Policies Items**
1.	Statement of Compliance with local laws (Companies Act 1994, Securities and Exchange Rule 1987, and other relevant rules.)
2.	Statement of Compliance of BAS/BFRS as adopted by ICAB
3.	Basis of measurement of elements of financial statements (historical cost basis)
4.	Materiality an aggregation
5.	Offsetting
6.	Management’s estimates and judgment for applying the selected accounting policies
7.	Consistency in applying accounting policies
8.	Disclosure of new IFRS (issued but not yet effective)
9.	Significant accounting standards applied
10.	Translation /Conversion of Foreign currencies
11.	Accounting policy for property, plant & equipment
12.	Accounting policy for intangible assets/R&D
13.	Accounting policy for capitalization of borrowing costs/finance expenses
14.	Accounting policy for investment

15.	Accounting policy for financial instrument
16.	Accounting policy for inventories
17.	Accounting policy for trade and other receivables
18.	Accounting policy for cash and cash equivalents
19.	Accounting policy for provision, accruals and contingencies
20.	Accounting policy for events occurring after balance sheet date
21.	Accounting policy for Earnings per share
22.	Accounting policy for dividend distribution on ordinary shares
23.	Accounting policy for revenue
24.	Accounting policy for operating expenses
25.	Accounting policy for employee benefit
26.	Accounting policy for taxation
27.	Accounting policy for statement of cash flows
28.	Accounting policy for related party transactions
29.	Policy for risk exposure
30.	Sales /distribution policy/network
31.	Purchase, procurement policy (how, from where input is purchased)
Part 8	**Other Notes to the financial statements**
1.	Schedule for PPE (beginning, addition, sale, ending, depreciation, accumulated dep. etc)
2.	Depreciation rate/useful life of assets
3.	Allocation of depreciation among production, admin and selling
4.	Existence of restriction on title (Leasehold/freehold)
5.	Statement about asset revalued or not
6.	Causes of revaluation
7.	Revaluation surplus (loss) (if any)
8.	Date of revaluation (if any)
9.	Name of revaluer
10.	Work in Process (Addition)
11.	Transferred to PPE
12.	Classification of Investment (quoted, unquoted, name of companies etc)
13.	Detailed about investment (rate, terms and condition etc)
14.	Market value of investment
15.	Classes of Intangible assets (computer Software, Research, development and experimental costs) (beginning, closing)
16.	Useful life or amortization rate of intangible assets
17.	Classification of inventories
18.	Inventory (category wise) physical count
19.	Inventories pledged as security against liabilities (whether or not)
20.	Types of Advances, deposits and prepayments (Goods, salaries, VAT, Taxes, FDR in Banks etc)
21.	Classification of trade receivables (party wise-customers, foreign, local etc)
22.	Classification of trade receivables (as good and bad or doubtful)
23.	Secured and non secured trade receivables
24.	Provision for bad and doubtful debt or fact that no provision is made
25.	Ageing of trade receivables
26.	Classification of Cash and cash equivalent (IAS 7 and IAS 1)
27.	Cash in transit shown separately
28.	Cash in hand (head office and factory)
29.	Break up shown for cash at different banks (current, savings etc)
30.	Number and amount of authorized, issued, subscribed and paid up share capital
31.	Classification of shareholders by holding (range, no. of shares, % of holding)
32.	Note on retained earnings
33.	Description of reserve
34.	Note on deferred tax liability
35.	Classification of **Loans , borrowings** (from different sources)
36.	Terms and conditions (installments) for loan
37.	Interest rates for loan
38.	Security of loan
39.	Terms and conditions (installments) for each loan
40.	Interest rates for each loan
41.	Security of each loan
42.	Terms and conditions (installments) for each loan
43.	Notes on liabilities for expenses/accruals
44.	Notes on Trade & other payables

45.	Note on staff benefit (Provident fund, WPPF)
46.	Income tax expenses (income tax, capital gain tax, foreign transactions tax etc)
47.	Provision for tax (beginning, ending, used)
48.	Reconciliation of tax expenses with accounting profit
49.	Revenue from each significant category of product
50.	Quantity of sales for each significant category of product
51.	Notes on commission, brokerage, discount or the fact that no such expense is made
52.	Calculation of cost of goods sold
53.	Calculation of raw materials consumed
54.	Value of percentage of all imported and local raw materials, spare parts and components consumed
55.	Break down of operating expenses (FOH/MOH, selling, administrative expenses
56.	Note on finance expenses / Finance income
57.	Note on other income/ non operating income
58.	Notes on miscellaneous expense exceeding 1% of total revenue expenses
59.	Notes on donation and subscriptions exceeding Tk.50000
60.	Calculation shown for Earnings per share (Basic earnings, diluted earnings)
61.	Related party transaction (transactions with subsidiaries, associate companies and related persons) or declaration that there is no such transactions
62.	Loan to directors or declaration that there is no such transactions
63.	Remuneration of directors/MD (total)
64.	Forms of remuneration to directors, MD etc (Salary, meeting fees, rent, medical etc)
65.	Remuneration for each of top ten paid employees
66.	Transaction in foreign currencies or foreign operations
67.	Methods/rates/basis used for translation of foreign operations
68.	Amount of exchange differences (whether included in the net profit or loss or in equity)
69.	**Unused cash**
70.	Un availed credit facility
71.	Notes Events after the balance sheet date
Part-9	**Important Ratios**
1.	Current ratio
2.	Quick ratio
3.	Times interest earned ratio
4.	Debt to equity ratio
5.	Debt to total asset
6.	Accounts receivable turnover ratio
7.	Inventory turnover ratio
8.	Asset turnover ratio
9.	Tangible assets per share
10.	Gross margin ratio
11.	Operating income ratio
12.	Net income ratio
13.	Return on Asset ratio
14.	Return on equity ratio

Appendix 4.5

Voluntary Disclosure Check List

Sl. No	Disclosure Details
Part 1	**General Information (Corporate objectives, values & structure)**
1.	Vision, mission statement
2.	Overall strategic objectives
3.	Core values/goals
4.	Quality certification by ISO. BSTI etc
5.	Share price/index fluctuation information
6.	Investors' complain
7.	Directors picture
8.	Major events
9.	Special mention for ' sustainable /integrated reporting'
Part 2	**Corporate Social Responsibility Reporting**
	Community Involvement
1.	Statement regarding CSR policy
2.	Charitable activities /Poverty alleviation activities
3.	Government arranged/ national pride programs/ projects
4.	Activities for distressed/special people (flood, autism, special medical camp 'talukata' etc)
5.	Sponsoring social development activities youth (sport, education, etc)
6.	Quantitative figure /Statistics/Amount of money for community involvement
7.	Contribution to national exchequer
Part 3	**Product**
1.	Discussion/ mention of product safety & quality
2.	Discussion about R&D activities/policies
3.	Picture of product
4.	Handling of customer complain
Part 4	**Environment**
1.	Impact of company's activities on external environment
2.	Waste management/effluent system
3.	Description of environment protection activities (forestation, use of environment friendly tech. etc)
4.	Amount of money spent on environmental restoration
Part 5	**Human Resource**
1.	Remuneration and benefit policy
2.	Types of training arrangements
3.	Concern for need of employee training and development
4.	Quantitative figure on training (No. of employees trained/no. of hours trained)
5.	Amount spent on training
6.	Description of /corporate policy on health & safety arrangement
7.	Quantitative figure on health & safety arrangement
8.	Recreational activities (picnic, sport etc) in picture or other
9.	Industrial relationship/mgt-employee relationship
10.	Statement about accidents in organization
11.	Statement on Child labor issue
12.	Gender distribution of employees
13.	Mention of Equal opportunity policy
Part 6	**Graphical /Pictorial Data**
1.	EPS
2.	Dividend per share
3.	Net asset
4.	Shareholder's equity
5.	Return on equity/ Return on asset
6.	Return on capital employed
7.	Gross profit
8.	Operating profit
9.	Net profit after tax
10.	Turnover/Revenue

Part 7	**Statement of Value added**
1.	Output: Revenue
2.	Suppliers and others
3.	Government as taxes
4.	Finance provider as dividend etc
5.	Employees as bonus/remuneration
6.	Retained by entity/ reserve and surplus/Depreciation

Appendix 5.1

Questionnaire Data

Questionnaire Data on BSEC

Perceived value of Influence	5	4	3	2	1
Mandatory Disclosure					
1. General information(mandatory)	42	4	3	0	1
2. Statement of Fin. Position	50	0	0	0	0
3. Statement of Profit or Loss and other comprehensive income	50	0	0	0	0
4. Statement of changes in equity	48	2	0	0	0
5. Accounting Policies	43	5	0	2	0
6. Director's Report	42	5	3	0	0
7. Cash flow statement	47	3	0	0	0
8. Explanatory notes	41	5	4	0	0
9. Ratio Analysis	29	7	9	2	3
Voluntary Disclosure					
10. General information (voluntary)	16	9	15	6	4
11. Environment	6	9	16	8	11
12. Human resources	10	8	17	8	7
13.Products	11	14	10	9	6
14.Community Involvement	6	10	14	7	13
15. Graphs, charts, pictorial data	17	7	9	8	9
16. Value added statement	19	9	7	5	10

Questionnaire Data on Award

Perceived value of Influence	5	4	3	2	1
Mandatory Disclosure					
1. General information(mandatory)	25	5	4	4	12
2. Statement of Fin. Position	26	6	5	2	11
3. Statement of Profit or Loss and other comprehensive income	24	9	3	3	11
4. Statement of changes in equity	24	7	5	3	11
5. Accounting Policies	27	5	2	3	13
6. Director's Report	25	6	5	2	12
7. Cash flow statement	25	9	3	2	11
8. Explanatory notes	24	7	5	4	10
9. Ratio Analysis	24	9	3	3	11
Voluntary Disclosure					
10. General information (voluntary)	19	8	10	3	10
11. Environment	18	5	10	5	12
12. Human resources	19	6	7	5	13
13.Products	18	9	4	6	13
14.Community Involvement	16	7	8	7	12
15. Graphs, charts, pictorial data	20	6	10	3	11
16. Value added statement	22	7	6	4	11

Questionnaire Data on Tax authority

Perceived value of Influence	5	4	3	2	1
Mandatory Disclosure					
1. General information(mandatory)	14	5	15	3	13
2. Statement of Fin. Position	37	4	6	1	2
3. Statement of Profit or Loss and other comprehensive income	38	3	6	1	2
4. Statement of changes in equity	26	6	7	3	8
5. Accounting Policies	25	4	9	4	8
6. Director's Report	15	3	10	8	14
7. Cash flow statement	29	7	5	2	7
8. Explanatory notes	20	7	11	4	8
9. Ratio Analysis	7	8	10	9	16
Voluntary Disclosure					
10. General information (voluntary)	4	4	12	8	22
11. Environment	3	3	8	9	27
12. Human resources	3	5	9	8	25
13.Products	6	5	7	7	25
14.Community Involvement	4	3	8	9	26
15. Graphs, charts, pictorial data	3	4	8	9	26
16. Value added statement	3	7	8	8	24

Questionnaire Data on External Shareholders

Perceived value of Influence	5	4	3	2	1
Mandatory Disclosure					
1. General information(mandatory)	22	8	11	3	6
2. Statement of Fin. Position	33	6	6	1	4
3. Statement of Profit or Loss and other comprehensive income	34	7	4	1	4
4. Statement of changes in equity	31	5	4	5	5
5. Accounting Policies	21	10	9	4	6
6. Director's Report	30	10	4	1	5
7. Cash flow statement	31	8	3	3	5
8. Explanatory notes	23	12	6	3	6
9. Ratio Analysis	17	11	10	3	9
Voluntary Disclosure					
10. General information (voluntary)	8	8	12	14	8
11. Environment	6	5	17	10	12
12. Human resources	4	7	13	16	10
13.Products	7	7	18	8	10
14.Community Involvement	4	5	11	15	15
15. Graphs, charts, pictorial data	7	9	10	11	13
16. Value added statement	5	10	12	7	16

Questionnaire Data on Trade Association

Perceived value of Influence	5	4	3	2	1
Mandatory Disclosure					
1. General information(mandatory)	6	5	10	7	22
2. Statement of Fin. Position	9	4	11	3	23
3. Statement of Profit or Loss and other comprehensive income	9	4	12	2	23
4. Statement of changes in equity	9	4	8	4	25
5. Accounting Policies	7	2	9	9	23
6. Director's Report	5	6	9	6	24
7. Cash flow statement	8	4	7	7	24
8. Explanatory notes	4	6	8	7	25
9. Ratio Analysis	3	9	7	6	25
Voluntary Disclosure					
10. General information (voluntary)	0	4	13	9	24
11. Environment	1	4	14	4	27
12. Human resources	0	6	10	8	26
13.Products	2	5	12	6	25
14.Community Involvement	1	6	10	7	26
15. Graphs, charts, pictorial data	1	5	7	10	27
16. Value added statement	1	5	9	8	27

Questionnaire Data on Media

Perceived value of Influence	5	4	3	2	1
Mandatory Disclosure					
1. General information (mandatory)	6	10	9	6	19
2. Statement of Fin. Position	15	3	11	5	16
3. Statement of Profit or Loss and other comprehensive income	15	4	9	6	16
4. Statement of changes in equity	13	4	6	8	19
5. Accounting Policies	11	2	11	5	21
6. Director's Report	11	6	10	6	17
7. Cash flow statement	13	3	11	7	16
8. Explanatory notes	6	5	12	8	19
9. Ratio Analysis	7	6	8	9	20
Voluntary Disclosure					
10. General information (voluntary)	2	2	14	12	20
11. Environment	3	0	21	5	21
12. Human resources	2	3	14	8	23
13.Products	3	4	12	9	22
14.Community Involvement	2	5	12	8	23
15. Graphs, charts, pictorial data	5	3	10	8	24
16. Value added statement	2	5	11	7	25

Profile Data of the Respondents

Present position of the respondents	CFO	15
	CS	12
	Others	22
	Missing data	1
Educational qualification of the respondents	CA & other	6
	CA	20
	CMA	6
	CS	6
	Masters/ITP& partly CA/CMA	2
	Masters	5
	ITP& CMA/CS	2
	Masters & ITP	2
	Missing data	1
Professional membership of the respondents	ICAB & other	6
	ICAB	20
	ICMAB	6
	ICSB	6
	ICMAB/ICSB &Tax Bar	2
	Tax Bar	2
	None	7
	Missing	1

Appendix 5.2

1. Mandatory Disclosures (MDI) and Internal Factors

Correlations

		MDI	SIZE	CFO	PRT	INSDR	INT
MDI	Pearson Correlation	1	.188	.251*	-.257*	.169	.206
	Sig. (1-tailed)		.095	.039	.036	.120	.075
	N	50	50	50	50	50	50
SIZE	Pearson Correlation	.188	1	.280*	.467**	.268*	.186
	Sig. (1-tailed)	.095		.024	.000	.030	.098
	N	50	50	50	50	50	50
CFO	Pearson Correlation	.251*	.280*	1	.081	.238*	-.042
	Sig. (1-tailed)	.039	.024		.289	.048	.387
	N	50	50	50	50	50	50
PRT	Pearson Correlation	-.257*	.467**	.081	1	.166	-.026
	Sig. (1-tailed)	.036	.000	.289		.124	.429
	N	50	50	50	50	50	50
INSDR	Pearson Correlation	.169	.268*	.238*	.166	1	-.003
	Sig. (1-tailed)	.120	.030	.048	.124		.491
	N	50	50	50	50	50	50
INT	Pearson Correlation	.206	.186	-.042	-.026	-.003	1
	Sig. (1-tailed)	.075	.098	.387	.429	.491	
	N	50	50	50	50	50	50

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

2. Mandatory Disclosures (MDI) and External Factors

Correlations

		MDI	BSEC	AWRD	TXAT	EXSH	TRDSO	MED
MDI	Pearson Correlation	1	.227	.175	-.154	.079	-.223	-.157
	Sig. (1-tailed)		.056	.113	.143	.293	.060	.137
	N	50	50	50	50	50	50	50
BSEC	Pearson Correlation	.227	1	.120	.029	-.217	.061	-.189
	Sig. (1-tailed)	.056		.204	.420	.065	.336	.095
	N	50	50	50	50	50	50	50
AWRD	Pearson Correlation	.175	.120	1	.129	.246*	.500**	.314*
	Sig. (1-tailed)	.113	.204		.186	.043	.000	.013
	N	50	50	50	50	50	50	50
TXAT	Pearson Correlation	-.154	.029	.129	1	.457**	.297*	.477**
	Sig. (1-tailed)	.143	.420	.186		.000	.018	.000
	N	50	50	50	50	50	50	50
EXSH	Pearson Correlation	.079	-.217	.246*	.457**	1	.325*	.413**
	Sig. (1-tailed)	.293	.065	.043	.000		.011	.001
	N	50	50	50	50	50	50	50
TRDSO	Pearson Correlation	-.223	.061	.500**	.297*	.325*	1	.580**
	Sig. (1-tailed)	.060	.336	.000	.018	.011		.000
	N	50	50	50	50	50	50	50
MED	Pearson Correlation	-.157	-.189	.314*	.477**	.413**	.580**	1
	Sig. (1-tailed)	.137	.095	.013	.000	.001	.000	
	N	50	50	50	50	50	50	50

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

3. Voluntary Disclosures (VDI) and Internal Factors

Correlations

		SIZE	CFO	PRT	INSDR	INT	VDI
SIZE	Pearson Correlation	1	.280*	.467**	.268*	.186	.533**
	Sig. (1-tailed)		.024	.000	.030	.098	.000
	N	50	50	50	50	50	50
CFO	Pearson Correlation	.280*	1	.081	.238*	-.042	.133
	Sig. (1-tailed)	.024		.289	.048	.387	.179
	N	50	50	50	50	50	50
PRT	Pearson Correlation	.467**	.081	1	.166	-.026	.166
	Sig. (1-tailed)	.000	.289		.124	.429	.124
	N	50	50	50	50	50	50
INSDR	Pearson Correlation	.268*	.238*	.166	1	-.003	-.042
	Sig. (1-tailed)	.030	.048	.124		.491	.386
	N	50	50	50	50	50	50
INT	Pearson Correlation	.186	-.042	-.026	-.003	1	.153
	Sig. (1-tailed)	.098	.387	.429	.491		.145
	N	50	50	50	50	50	50
VDI	Pearson Correlation	.533**	.133	.166	-.042	.153	1
	Sig. (1-tailed)	.000	.179	.124	.386	.145	
	N	50	50	50	50	50	50

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

4. Voluntary Disclosures (VDI) and External Factors

Correlations

		VDI	BSEC	AWRD	TXAT	EXSH	TRDSO	MED
VDI	Pearson Correlation	1	.192	.387**	.110	.250*	.045	.172
	Sig. (1-tailed)		.091	.003	.224	.040	.377	.116
	N	50	50	50	50	50	50	50
BSEC	Pearson Correlation	.192	1	.258*	.275*	.342**	.378**	.166
	Sig. (1-tailed)	.091		.035	.027	.007	.003	.124
	N	50	50	50	50	50	50	50
AWRD	Pearson Correlation	.387**	.258*	1	.406**	.144	.316*	.212
	Sig. (1-tailed)	.003	.035		.002	.159	.013	.069
	N	50	50	50	50	50	50	50
TXAT	Pearson Correlation	.110	.275*	.406**	1	.449**	.501**	.472**
	Sig. (1-tailed)	.224	.027	.002		.001	.000	.000
	N	50	50	50	50	50	50	50
EXSH	Pearson Correlation	.250*	.342**	.144	.449**	1	.481**	.484**
	Sig. (1-tailed)	.040	.007	.159	.001		.000	.000
	N	50	50	50	50	50	50	50
TRDSO	Pearson Correlation	.045	.378**	.316*	.501**	.481**	1	.643**
	Sig. (1-tailed)	.377	.003	.013	.000	.000		.000
	N	50	50	50	50	50	50	50
MED	Pearson Correlation	.172	.166	.212	.472**	.484**	.643**	1
	Sig. (1-tailed)	.116	.124	.069	.000	.000	.000	
	N	50	50	50	50	50	50	50

**. Correlation is significant at the 0.01 level (1-tailed).

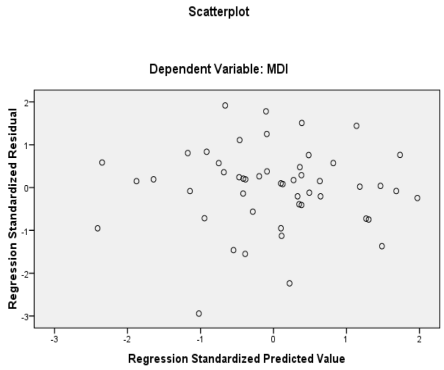
*. Correlation is significant at the 0.05 level (1-tailed).

Appendix 5.3

Residual Plots

Model-1: Dependent Variable : MDI

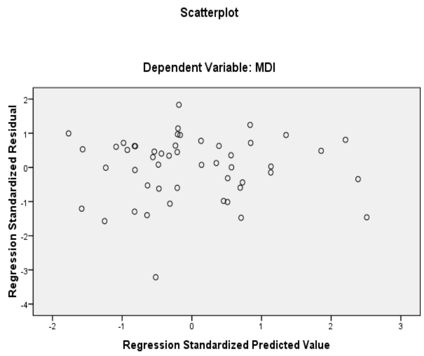
Independent Variables: SIZE,CFO,PRT,INSDR,INT



Model-2: Dependent Variable : MDI

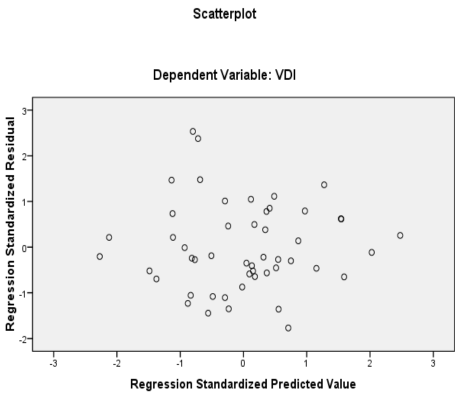
Independent Variables:

BSEC,AWRD,TXAT,EXSH,TRDSO,MED



Model 3: Dependent Variable: VDI

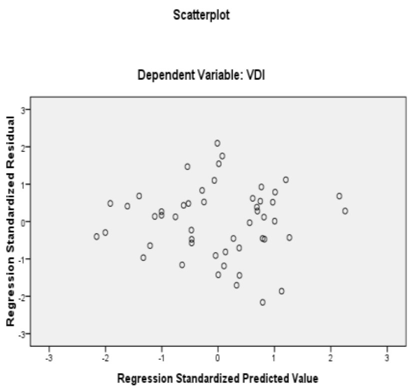
Independent Variables: SIZE,CFO,PRT,INSDR,INT



Equation 4: Dependent Variable: VDI

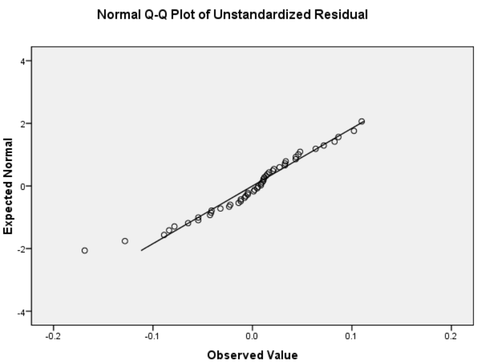
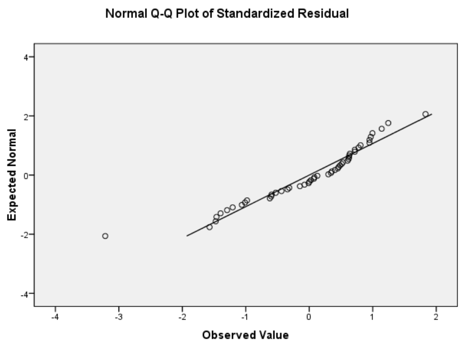
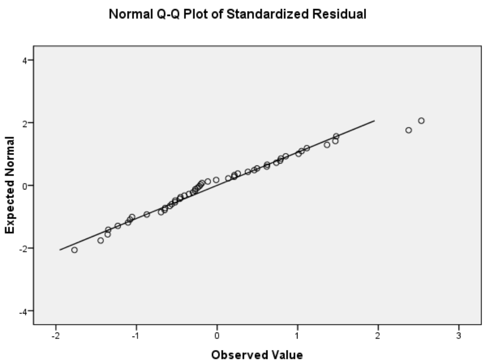
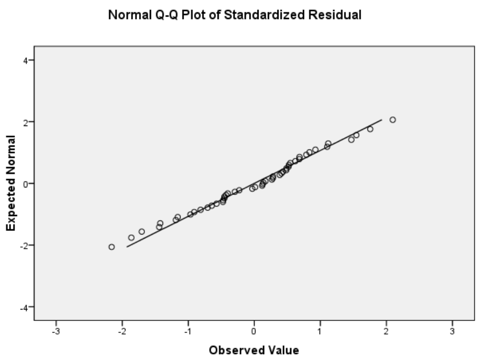
Independent

Variables:BSEC,AWRD,TXAT,EXSH,TRDSO,MED



Appendix 5.4

Q-Q plots for Normality

Model-1: Dependent Variable : MDI Independent Variables: SIZE,CFO,PRT,INSDR,INT 	**Model-2:** Dependent Variable : MDI Independent Variables: BSEC,AWRD,TXAT,EXSH,TRDSO,MED 
Model 3: Dependent Variable: VDI Independent Variables: SIZE,CFO,PRT,INSDR,INT 	**Equation 4:** Dependent Variable: VDI Independent Variables:BSEC,AWRD,TXAT,EXSH,TRDSO,MED 

Appendix 5.5

Stepwise Regression (Backward Elimination Method)

1. Mandatory Disclosure Index (MDI) with Internal Factors:

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.506[a]	.256	.171	.05731	3.022	.020[a]
2	.492[b]	.242	.175	.05717	3.597	.013[b]
3	.470[c]	.221	.170	.05733	4.352	.009[c]
4	.433[d]	.187	.153	.05794	5.410	.008[d]

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.499	.145		3.441	.001		
	SIZE	.012	.007	.267	1.669	.102	.660	1.515
	CFO	.023	.017	.187	1.350	.184	.880	1.137
	PRT	-.005	.002	-.413	-2.770	.008	.762	1.312
	INSDR	.015	.017	.122	.889	.379	.895	1.117
	INT	.019	.017	.154	1.147	.258	.937	1.067
2	(Constant)	.482	.143		3.358	.002		
	SIZE	.013	.007	.291	1.849	.071	.679	1.472
	CFO	.026	.017	.209	1.533	.132	.908	1.102
	PRT	-.005	.002	-.405	-2.732	.009	.765	1.308
	INT	.019	.017	.150	1.122	.268	.938	1.066
3	(Constant)	.452	.141		3.196	.003		
	SIZE	.015	.007	.334	2.184	.034	.723	1.384
	CFO	.024	.017	.192	1.416	.163	.918	1.089
	PRT	-.005	.002	-.428	-2.905	.006	.779	1.284
4	(Constant)	.406	.139		2.921	.005		
	SIZE	.017	.007	.394	2.649	.011	.782	1.279
	PRT	-.006	.002	-.441	-2.962	.005	.782	1.279

2. Mandatory Disclosure Index (MDI) with External Factors

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.523[a]	.273	.172	.05729	2.69	.026
2	.521[b]	.272	.189	.05669	3.28	.013
3	.487[c]	.238	.170	.05735	3.50	.014
4	.449[d]	.202	.150	.05804	3.88	.015
5	.398[e]	.158	.123	.05896	4.42	.017

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.412	.155		2.654	.011		
BSEC	.067	.032	.300	2.101	.042	.828	1.207
AWRD	.012	.006	.305	1.987	.053	.720	1.389
TXAT	-.013	.009	-.230	-1.429	.160	.652	1.533
EXSH	.018	.010	.300	1.892	.065	.673	1.486
TRDSO	-.021	.008	-.453	-2.544	.015	.534	1.874
MED	.002	.009	.052	.285	.777	.503	1.987
(Constant)	.423	.149		2.845	.007		
BSEC	.064	.030	.289	2.128	.039	.900	1.111
AWRD	.012	.006	.308	2.034	.048	.723	1.382
TXAT	-.012	.009	-.214	-1.436	.158	.748	1.336
EXSH	.018	.009	.303	1.937	.059	.676	1.479
TRDSO	-.020	.007	-.429	-2.752	.009	.681	1.469
(Constant)	.430	.150		2.863	.006		
BSEC	.058	.030	.262	1.927	.060	.917	1.090
AWRD	.013	.006	.327	2.144	.037	.729	1.371
EXSH	.013	.009	.208	1.450	.154	.824	1.214
TRDSO	-.022	.007	-.470	-3.026	.004	.703	1.422
(Constant)	.524	.137		3.826	.000		
BSEC	.047	.030	.210	1.582	.120	.986	1.014
AWRD	.014	.006	.356	2.329	.024	.742	1.347
TRDSO	-.019	.007	-.413	-2.719	.009	.750	1.333
(Constant)	.739	.022		33.884	.000		
AWRD	.015	.006	.381	2.466	.017	.750	1.333
TRDSO	-.019	.007	-.413	-2.673	.010	.750	1.333

3. Voluntary Disclosure Index (VDI) with Internal Factors

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.574[a]	.329	.253	.19381	4.314	.003
2	.573[b]	.329	.269	.19168	5.509	.001
3	.572[c]	.328	.284	.18974	7.471	.000
4	.566[d]	.321	.292	.18869	11.087	.000
5	.533[e]	.284	.269	.19169	19.030	.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.679	.491		-3.421	.001		
	SIZE	.097	.024	.616	4.050	.000	.660	1.515
	CFO	.007	.058	.016	.119	.906	.880	1.137
	PRT	-.004	.006	-.089	-.629	.533	.762	1.312
	INSDR	-.087	.058	-.195	-1.497	.141	.895	1.117
	INT	.016	.057	.036	.281	.780	.937	1.067
2	(Constant)	-1.692	.475		-3.564	.001		
	SIZE	.098	.023	.620	4.265	.000	.705	1.418
	PRT	-.004	.006	-.090	-.648	.520	.767	1.303
	INSDR	-.086	.057	-.193	-1.516	.136	.924	1.082
	INT	.015	.056	.034	.273	.786	.947	1.056
3	(Constant)	-1.714	.463		-3.704	.001		
	SIZE	.100	.022	.629	4.492	.000	.745	1.343
	PRT	-.004	.006	-.095	-.695	.490	.780	1.282
	INSDR	-.087	.056	-.194	-1.548	.129	.926	1.080
4	(Constant)	-1.592	.426		-3.739	.001		
	SIZE	.093	.020	.586	4.696	.000	.928	1.077
	INSDR	-.088	.056	-.199	-1.592	.118	.928	1.077
5	(Constant)	-1.449	.423		-3.427	.001		
	SIZE	.084	.019	.533	4.362	.000	1.000	1.000
a. Dependent Variable: VDI								

4. Voluntary Disclosure Index (VDI) with External Factors

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.515[a]	.266	.163	.20509	2.59	.031
2	.505[b]	.255	.170	.20420	3.01	.020
3	.490[c]	.240	.173	.20393	3.56	.013
4	.476[d]	.227	.176	.20350	4.49	.008
5	.434[e]	.189	.154	.20619	5.47	.007
6	.387[f]	.150	.132	.20883	8.48	.006

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.052	.114		.456	.651		
	BSEC	.025	.032	.117	.788	.435	.777	1.288
	AWRD	.066	.022	.441	3.001	.004	.791	1.265
	TXAT	-.031	.032	-.161	-.960	.342	.605	1.654
	EXTSH	.054	.032	.273	1.669	.102	.639	1.565
	TRDSO	-.068	.040	-.325	-1.704	.096	.470	2.126
	MED	.046	.039	.212	1.163	.251	.514	1.944
2	(Constant)	.101	.095		1.066	.292		
	AWRD	.068	.022	.458	3.167	.003	.809	1.237
	TXAT	-.030	.032	-.157	-.937	.354	.605	1.652
	EXTSH	.059	.031	.302	1.904	.063	.674	1.485
	TRDSO	-.060	.039	-.286	-1.560	.126	.504	1.984
	MED	.040	.039	.187	1.045	.302	.531	1.883
3	(Constant)	.103	.095		1.087	.283		
	AWRD	.062	.020	.415	3.030	.004	.900	1.111
	EXTSH	.052	.030	.266	1.729	.091	.716	1.396
	TRDSO	-.066	.038	-.315	-1.746	.088	.519	1.928
	MED	.034	.038	.158	.900	.373	.547	1.829
4	(Constant)	.118	.093		1.273	.209		
	AWRD	.062	.020	.417	3.051	.004	.900	1.111
	EXTSH	.059	.029	.302	2.039	.047	.768	1.301
	TRDSO	-.049	.032	-.231	-1.500	.140	.707	1.415
5	(Constant)	.109	.094		1.159	.252		
	AWRD	.053	.020	.359	2.702	.010	.979	1.021
	EXTSH	.039	.026	.199	1.496	.141	.979	1.021

6	(Constant)	.200	.072		2.775	.008		
	AWRD	.058	.020	.387	2.911	.005	1.000	1.000

a. Dependent Variable: VDI

5 Regression Analysis of Transformed Mandatory Disclosure Index (TMDI)

i. Regression analysis of Transformed MDI with Internal Factors

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.516[a]	.267	.183	.8958622	3.200	.015[a]
2	.508[b]	.258	.192	.8911263	3.909	.008[b]
3	.486[c]	.236	.187	.8940574	4.747	.006[c]
4	.446[d]	.199	.165	.9057879	5.845	.005[d]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-4.300	2.269		-1.895	.065		
	SIZE	.203	.111	.290	1.825	.075	.660	1.515
	CFO	.394	.270	.200	1.456	.152	.880	1.137
	PRT	-.082	.029	-.418	-2.825	.007	.762	1.312
	INSDR	.195	.269	.099	.725	.472	.895	1.117
	INT	.303	.262	.154	1.158	.253	.937	1.067
2	(Constant)	-4.528	2.235		-2.026	.049		
	SIZE	.216	.109	.309	1.985	.053	.679	1.472
	CFO	.428	.265	.218	1.617	.113	.908	1.102
	PRT	-.081	.029	-.412	-2.804	.007	.765	1.308
	INT	.297	.260	.151	1.142	.260	.938	1.066
3	(Constant)	-5.004	2.203		-2.271	.028		
	SIZE	.247	.106	.353	2.328	.024	.723	1.384
	CFO	.395	.264	.201	1.497	.141	.918	1.089
	PRT	-.086	.029	-.435	-2.979	.005	.779	1.284
4	(Constant)	-5.750	2.174		-2.645	.011		
	SIZE	.291	.103	.415	2.813	.007	.782	1.279
	PRT	-.088	.029	-.448	-3.032	.004	.782	1.279

a. Dependent Variable: Normal Score of MDI using Rankit's Formula

ii. Regression analysis of Transformed MDI with External Factors

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.547[a]	.300	.202	.8856438	3.065	.014
2	.547[b]	.299	.219	.8760777	3.748	.007
3	.513[c]	.264	.198	.8876552	4.028	.007

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	-6.019	2.398		-2.510	.016
	BSEC	1.157	.492	.329	2.349	.023
	AWRD	.201	.096	.317	2.108	.041
	TXAT	-.210	.145	-.230	-1.453	.154
	EXSH	.327	.148	.343	2.206	.033
	TRDSO	-.328	.129	-.444	-2.541	.015
	MED	.031	.132	.042	.234	.816
2	(Constant)	-5.879	2.296		-2.560	.014
	BSEC	1.124	.467	.320	2.406	.020
	AWRD	.203	.094	.320	2.154	.037
	TXAT	-.198	.134	-.216	-1.482	.145
	EXSH	.329	.146	.346	2.252	.029
	MTRDSO	-.314	.113	-.425	-2.777	.008
3	(Constant)	-5.761	2.325		-2.478	.017
	BSEC	1.029	.469	.293	2.195	.033
	AWRD	.215	.095	.339	2.264	.028
	EXSH	.238	.134	.249	1.770	.084
	TRDSO	-.344	.113	-.466	-3.055	.004

a. Dependent Variable: Normal Score of MDI using Rankit's Formula